

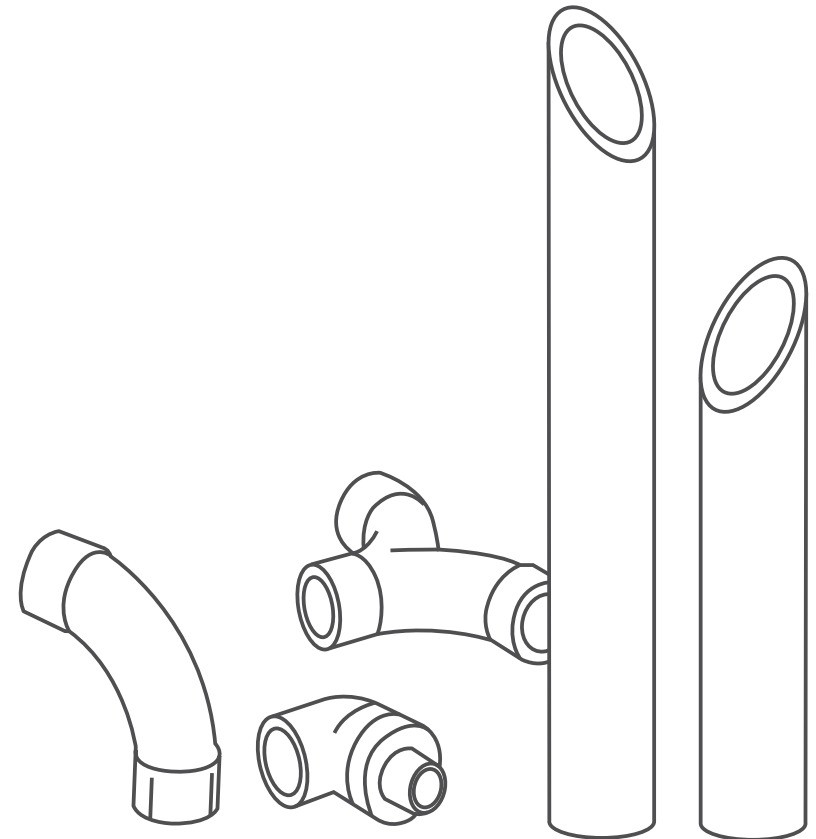
# POLYGON

## PPR PIPING SYSTEM

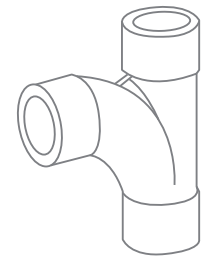
PRODUCT MANUAL



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# Brand Introduction

POLYGON Pipe is a well-known plastic piping system solution provider, specializing in the R&D, production and sales of plastic products of piping system, with leading technology and production equipment. The products cover water supply and drainage, ground-source heat pumps, co-layered drainage, siphon rainwater, municipal engineering, HVAC systems and other fields.

**1700000**  
Factory Scale

**3000**  
Group Employees

**500**  
Key Technical Personnel

**20000+**  
Marketing Network

**330+**  
City Coverage

**30+**  
Countries and Regions of Production and Sales



• Baodi, Tianjin City [100, 002m<sup>2</sup>]



• Huzhou, Zhejiang Province [193, 000m<sup>2</sup>]



• Heyuan, Guangdong province [20, 000m<sup>2</sup>]



• Xinxiang, Henan Province [99, 733m<sup>2</sup>]



• Jiangjin, Chongqing City [80, 000m<sup>2</sup>]



• Liuyang, Hunan Province [110, 000m<sup>2</sup>]



## Digital and Intelligent Factory

The factory is in line with the times, equipped with advanced equipment at home and abroad, like advanced equipment production lines such as German KraussMaffei, Swiss Maillefer, etc., and advanced equipment including China's well-known Shuanglin of Zhejiang, Swedain of Zhangjiagang, Juyuan of Shanghai, etc. The workshop is equipped with robots and manipulators, realizing the accurate and refined production, and intelligent management and control.



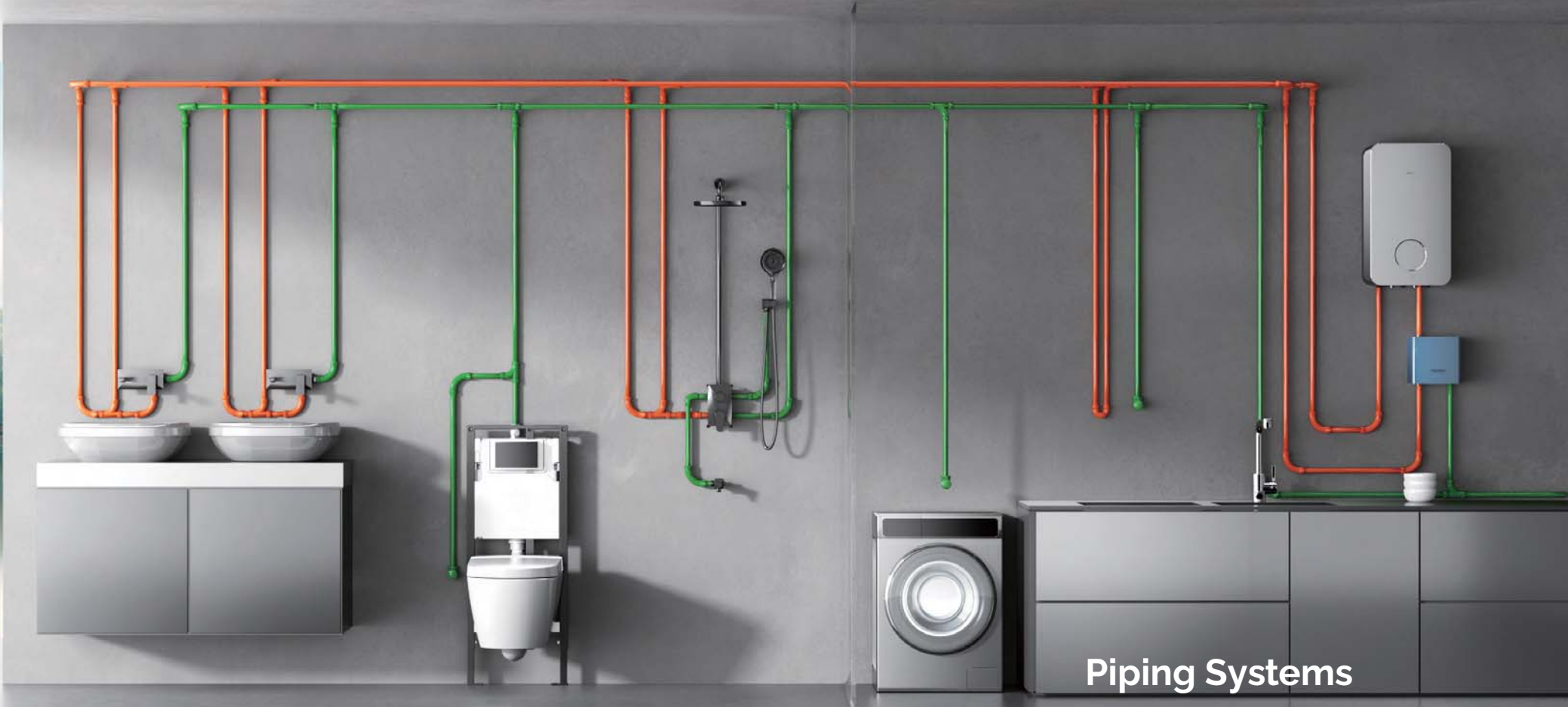


# 4

## CNAS Laboratories

The group has built 4 CNAS Laboratories integrating R&D, testing and inspection, and introduced hydrostatic equipment from IPT and DSC from TA. With the support of CNAS laboratories, the group has realized the whole process of quality control from raw materials, production to finished products.





## Piping Systems

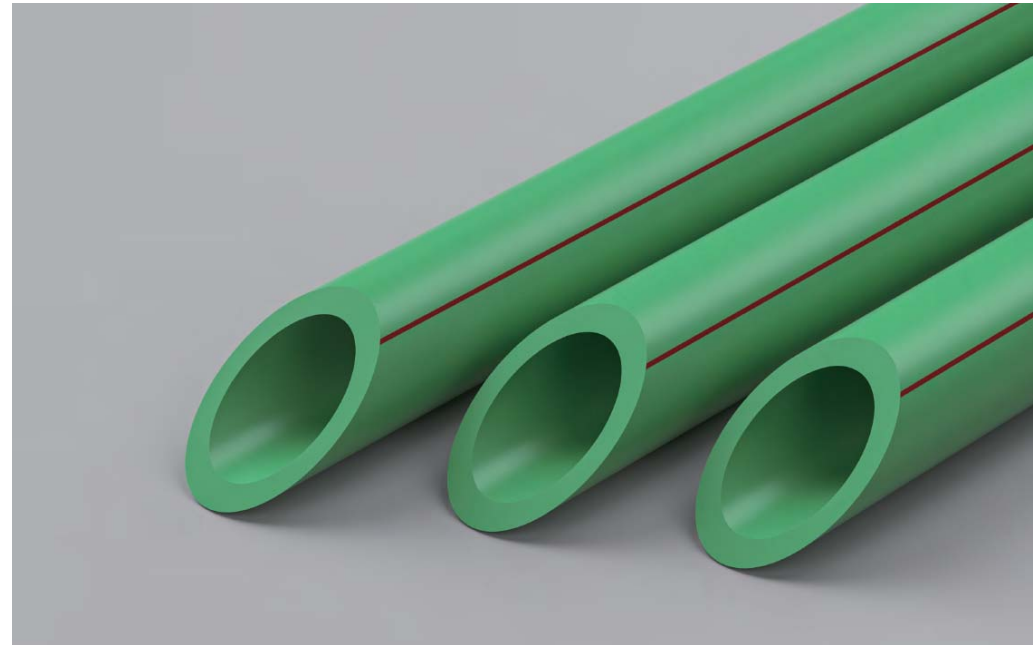
POLYGON pipeline hot water circulation system is a domestic water preheating and circulation of environmental protection system, realizing the experience of "faucet opens, hot water comes". The preheating and circulation technology realizes the instant supply of hot water as well as the water supply of constant temperature for multi-point and multi-floor.



## Piping Systems

POLYGON pipeline branch water supply system adopts a water distributor to provide independent water supply to each water point in separate circuits, and the water pressure in each circuit does not affect each other to maintain a stable water supply system. One water valve for each water circuit realizes zero interference with the water terminals.

# PPR pipe



### Selected Raw Materials

We select the best raw materials from Borealis and Korean Hyosung to ensure the quality of our products from the source.



### Durable Service Life

It meets the requirement of 50 years' service life for conveying cold water at 20 °C and 1MPa.

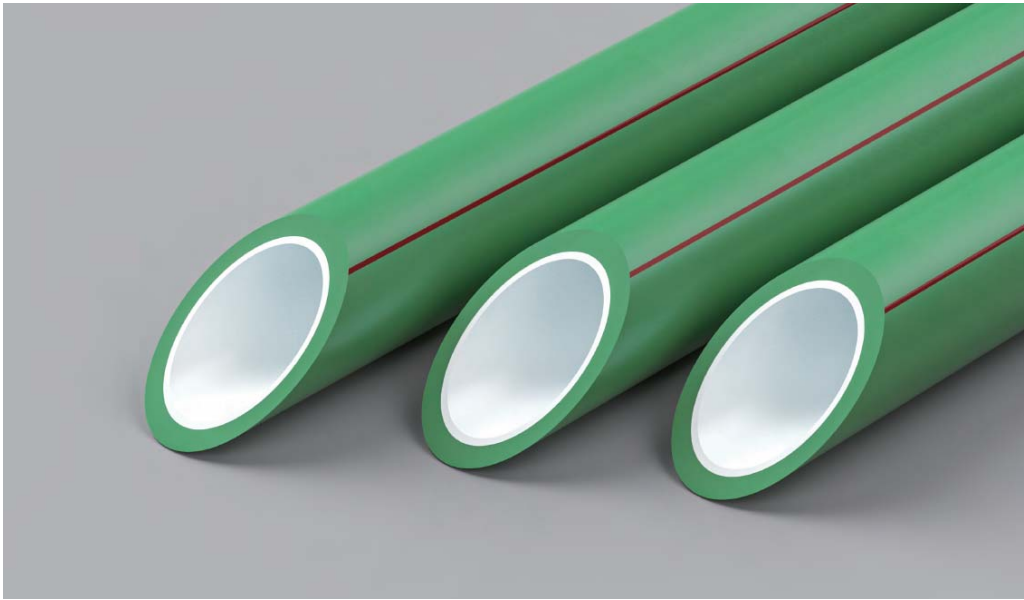
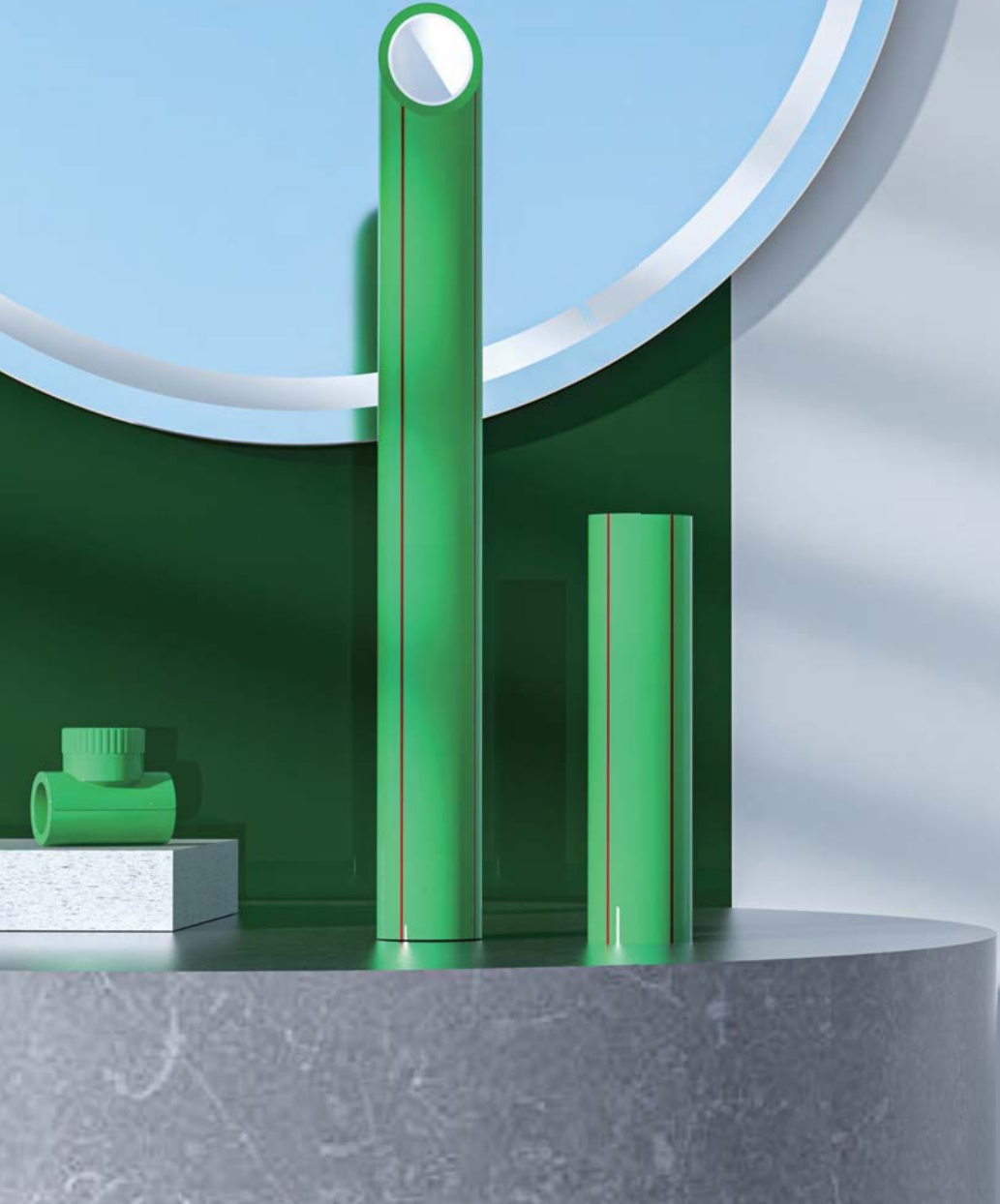


### Corrosion Resistance

It has strong corrosion resistance and good stability. The quality is stable due to the selection of domestic and foreign advanced equipment production lines.

Pipe series SDR11/S5		Pipe series SDR9/S4		Pipe series SDR7.4/S3.2		Pipe series SDR6/S2.5	
Code Number	Dimension (mm)	Code Number	Dimension (mm)	Code Number	Dimension (mm)	Code Number	Dimension (mm)
10020	20x2.0	11020	20x2.3	12020	20x2.8	13020	20x3.4
10025	25x2.3	11025	25x2.8	12025	25x3.5	13025	25x4.2
10032	32x3.0	11032	32x3.6	12032	32x4.4	13032	32x5.4
10040	40x3.7	11040	40x4.5	12040	40x5.5	13040	40x6.7
10050	50x4.6	11050	50x5.5	12050	50x6.9	13050	50x8.3
10063	63x5.8	11063	63x7.1	12063	63x8.6	13063	63x10.5
10075	75x6.9	11075	75x8.4	12075	75x10.1	13075	75x12.5
10090	90x8.2	11090	90x10.1	12090	90x12.3	13090	90x15.0
11010	110x10.0	11110	110x12.3	12110	110x15.1	13110	110x18.3
10160	160x14.6	11160	160x17.9	12160	160x21.9	13160	160x26.6

# PPR Two Layer pipe



### Improved Shading

Compared with the one layer PPR pipe, the two layer structure has better shading, and algae is not easy to grow.



### Not easy to scale

The inner wall of the pipe is smooth, not easy to scale, and the water flow is smooth and fluid.



### Selected Raw Materials

We select the best raw materials from Borealis and Korean Hyosung to ensure the quality of our products from the source.



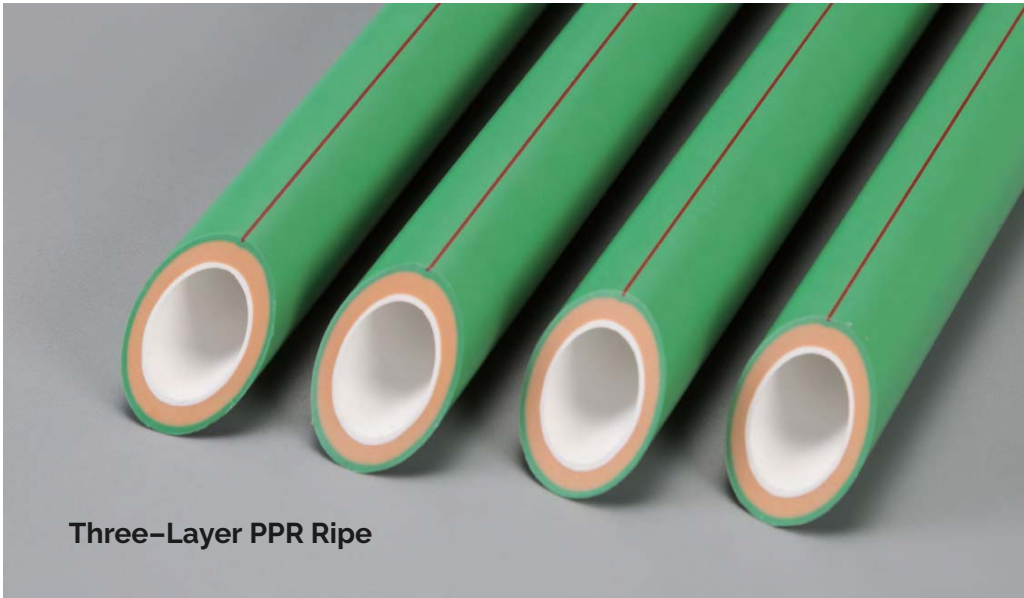
### Durable Service Life

It meets the requirement of 50 years' service life for conveying cold water at 20 C and 1MPa.

Pipe series SDR7.4/S3.2	
Code Number	Dimension (mm)
40020	20x2.8
40025	25x3.5
40032	32x4.4
40040	40x5.5
40050	50x6.9
40063	63x8.6

Pipe series SDR6/S2.5	
Code Number	Dimension (mm)
40020	20x3.4
40025	25x4.2
40032	32x5.4
40040	40x6.7
40050	50x8.3
40063	63x10.5

# PPR Three Layer pipe



Three-Layer PPR Pipe



**Improved Shading**

Compared with the double-layer structure, the three-layer co-extrusion process has better shading, and algae is not easy to grow.



**Impact Resistance**

The inner and outer layers have toughening formula, which improves the low-temperature impact performance of the pipe and the low-temperature brittleness of PPR pipe during winter transportation and installation.



**Durable Service Life**

It meets the requirement of 50 years' service life for conveying cold water at 20 C and 1MPa.



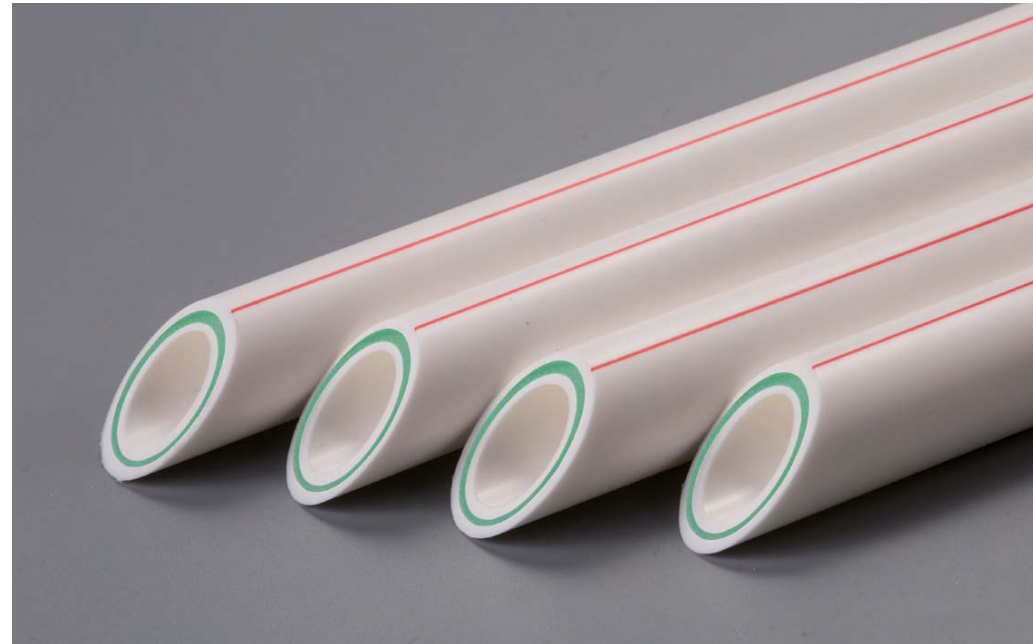
**Effective Anti-bacteria**

The inner layer is added AG silver ion masterbatch, releasing silver ions in the water environment, which destroys the activity of bacterial oxygenase and can inhibit the growth of E. coli and S. aureus.

Pipe series SDR7.4/S3.2	
Code Number	Dimension (mm)
40020	20x2.8
40025	25x3.5
40032	32x4.4
40040	40x5.5
40050	50x6.9
40063	63x8.6

Pipe series SDR6/S2.5	
Code Number	Dimension (mm)
40020	20x3.4
40025	25x4.2
40032	32x5.4
40040	40x6.7
40050	50x8.3
40063	63x10.5

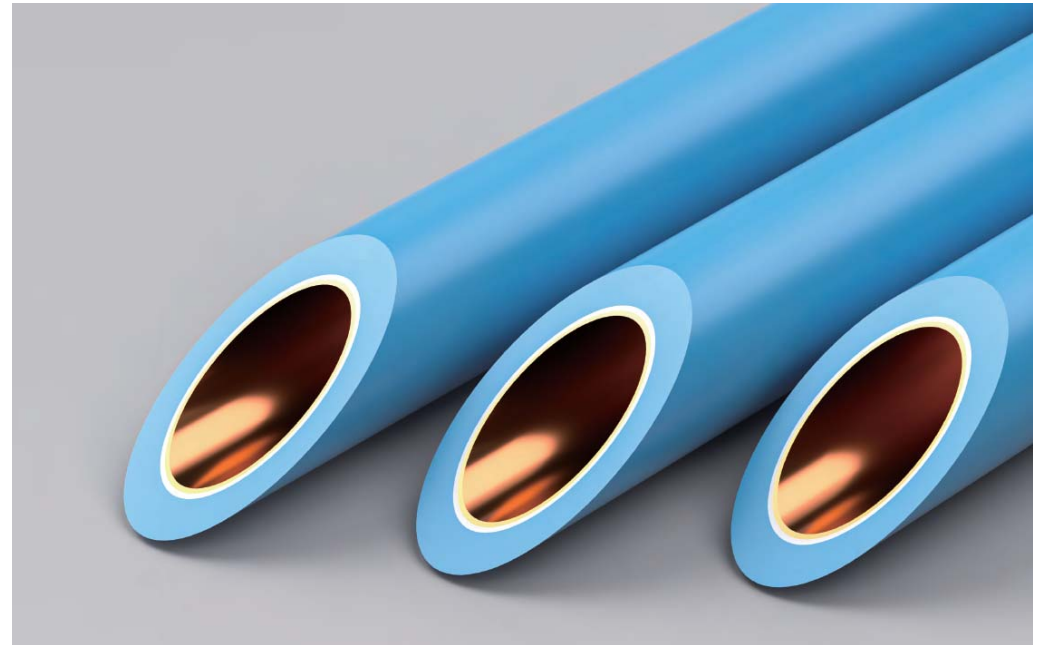
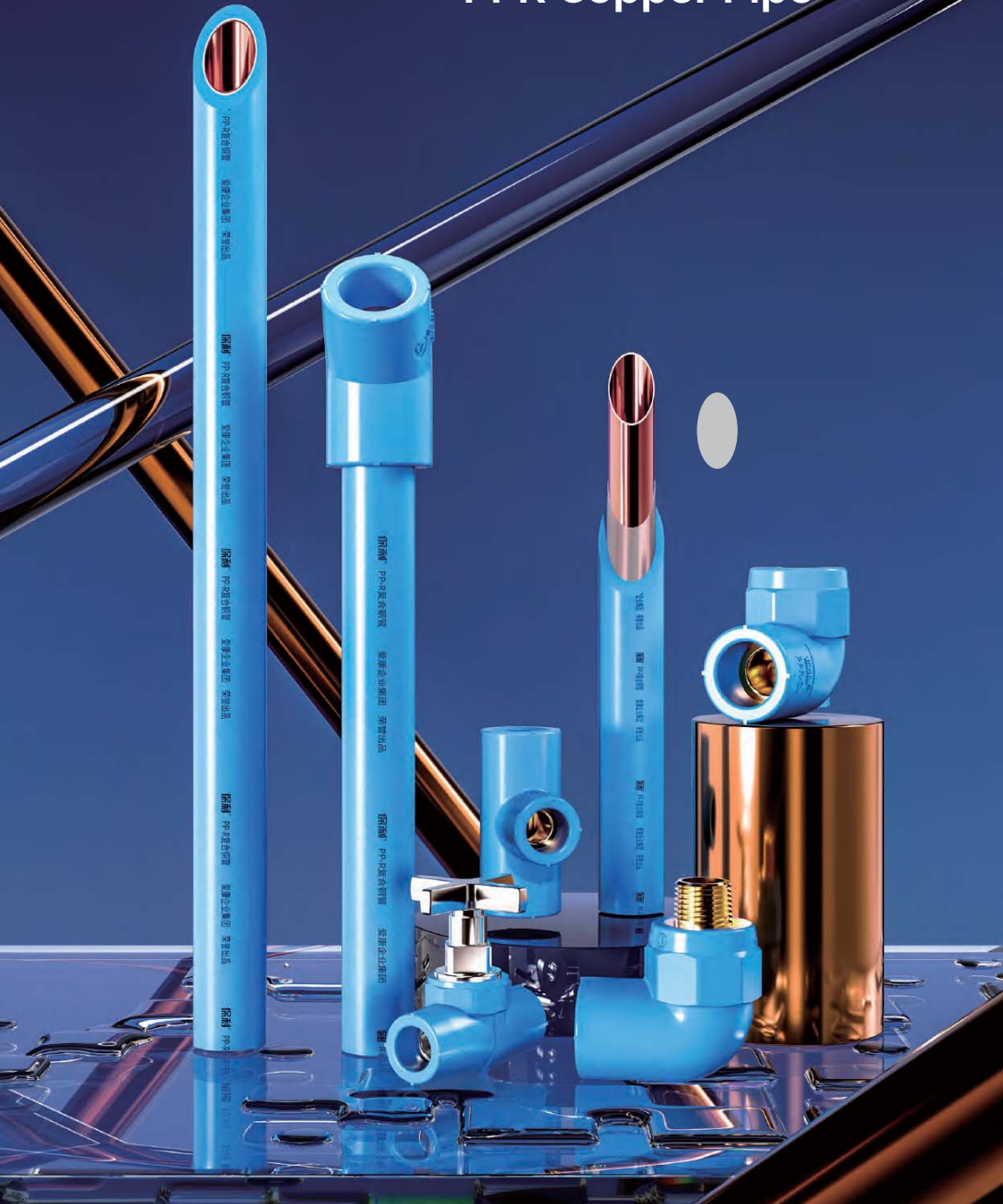
# PPR Fiber pipe



- One fibre layer in the middle
- Lower coefficient of linear expansion
- High impact and pressure resistance

Pipe series SDR7.4/S3.2		Pipe series SDR6/S2.5	
Code Number	Dimension (mm)	Code Number	Dimension (mm)
18020	20x2.8	19020	20x3.4
18025	25x3.5	19025	25x4.2
18032	32x4.4	19032	32x5.4
18040	40x5.5	19040	40x6.7
18050	50x6.9	19050	50x8.3
18063	63x8.6	19063	63x10.5

# PPR Copper Pipe



## TP2 phosphorous deoxidized copper tube

- anti-bacterial function
- not easy to scale
- The linear expansion coefficient is small
- Block light and oxygen



## Fully lined copper fittings

- CW617N eco-friendly copper
- One-piece forged+CNC
- Excellent resistance to cracking and pressure



PPR Copper Pipe SDR6/S2.5	
Code Number	Dimension (mm)
17020	20x3.4
17025	25x4.2
17032	32x5.4

# PP-RCT PIPE



### Selected Raw Materials

A special molecular structure ensures high mechanical resistance and duration.



### Compared with PP-R

When the wall thickness are the same, working under a high temperature and pressure, the performance of PPRCT pipe is better than PPR pipe.



### Compare with PP-R

When working performance are the same, PPRCT is thinner than PPR, increasing the flow rate.

Pipe Series SDR11/S5		Pipe Series SDR9/S4		Pipe Series SDR7.4/S3.2		Pipe Series SDR6/S2.5	
Code Number	Dimension (mm)	Code Number	Dimension (mm)	Code Number	Dimension (mm)	Code Number	Dimension (mm)
10020CT	20x2.0	10020CT	20x2.3	10020CT	20x2.8	13020CT	20x3.4
10025CT	25x2.3	10025CT	25x2.8	10025CT	25x3.5	13025CT	25x4.2
10032CT	32x3.0	10032CT	32x3.6	10032CT	32x4.4	13032CT	32x5.4
10040CT	40x3.7	10040CT	40x4.5	10040CT	40x5.5	13040CT	40x6.7
10050CT	50x4.6	10050CT	50x5.5	10050CT	50x6.9	13050CT	50x8.3
10063CT	63x5.8	10063CT	63x7.1	10063CT	63x8.6	13063CT	63x10.5
10075CT	75x6.9	10075CT	75x8.4	10075CT	75x10.1	13075CT	75x12.5
10090CT	90x8.2	10090CT	90x10.1	10090CT	90x12.3	13090CT	90x15.0
10110CT	110x10.0	10110CT	110x12.3	10110CT	110x15.1	13110CT	110x18.3
10160CT	160x14.6	10160CT	160x17.9				

# PP-R STABLE COMPOSITE PIPE

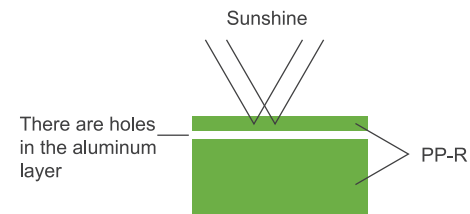


- PP-R Stable Composite Pipe has aluminum layer in the middle
- It can work under higher pressure
- The metal layer can be easily detected, makes it easily to be maintained

Arbitrary combination:

### Installation Notice:

- Before starting the fusion, check if the outer layer and aluminum foil have been completely removed.
- Only use POLYGON-original peeling tools with undamaged peeling blades. Blunt peeling blades have to be replaced with original ones. It will be necessary to make trial peeling to check the correct setting of the new blade.

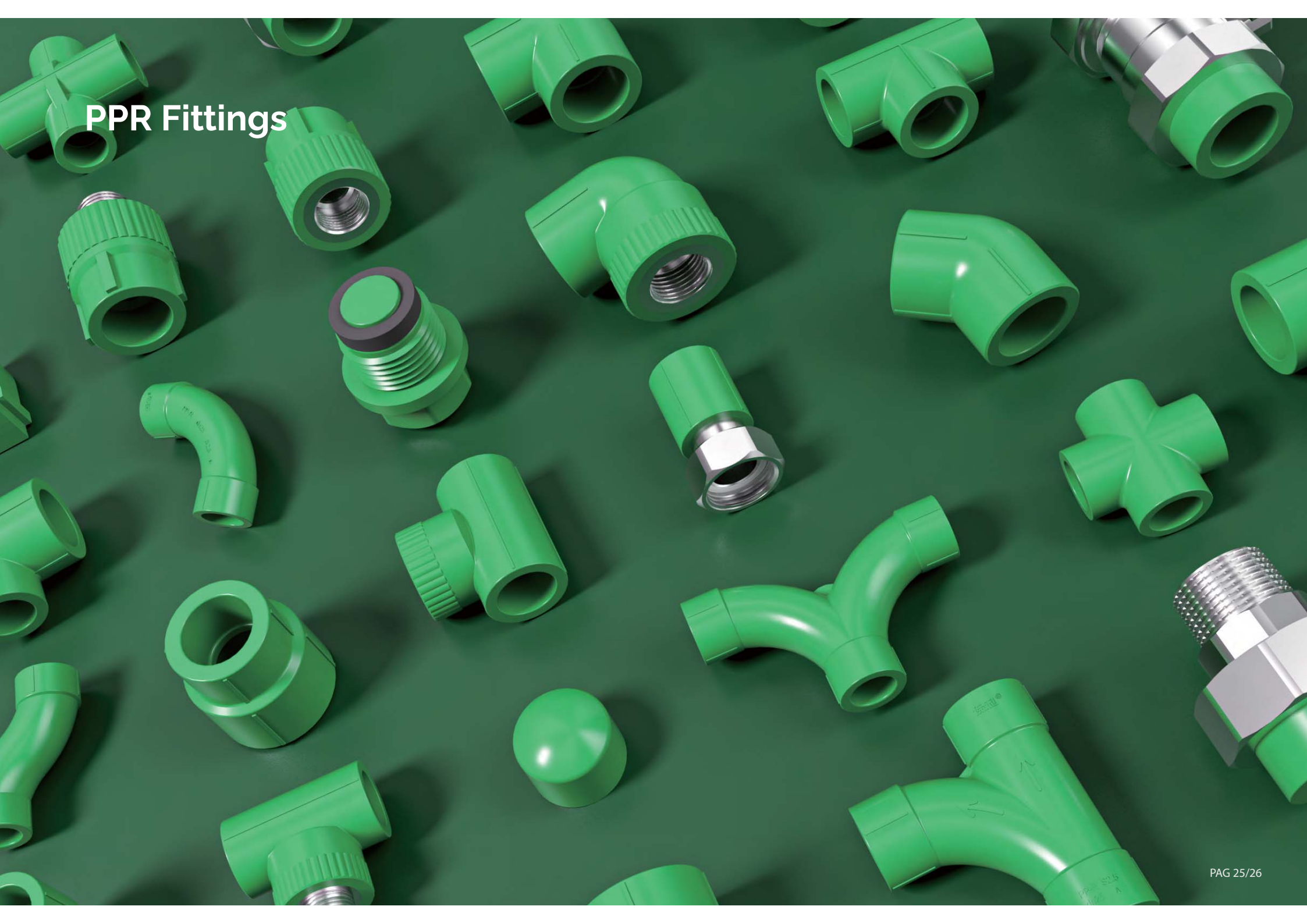


PP-R Stable pipe SDR9/S4	
Code Number	Dimension (mm)
14020	20x2.3
14025	25x2.8
14032	32x3.6

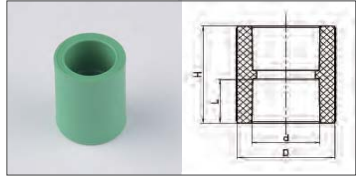
PP-R Stable pipe SDR7.4/S3.2	
Code Number	Dimension (mm)
15020	20x2.8
15025	25x3.5
15032	32x4.4

PP-R Stable pipe SDR6/S2.5	
Code Number	Dimension (mm)
16020	20x3.4
16025	25x4.2
16032	32x5.4

# PPR Fittings



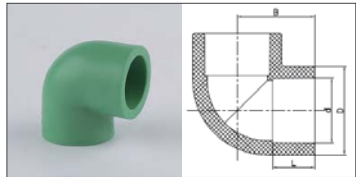
# FITTINGS



**Coupling**

## Coupling

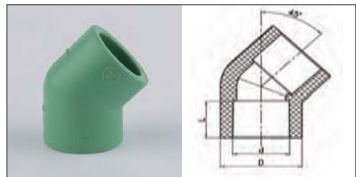
Size (mm)	Item Code	D	d	L	H
20	20020	27.4	19.2	16	34
25	20025	32.8	24.1	18	38.2
32	20032	42.1	31	20	42.5
40	20040	52.6	39	21.5	45.8
50	20050	65.8	49	24	51.3
63	20063	83.2	61.9	28	59.6
75	20075	98.7	73.7	31.5	66
90	20090	118.4	88.4	36	76
110	20110	144.7	108	42	89
160	20160	201.4	157.8	51	107.7



**90° Elbow**

## 90° Elbow

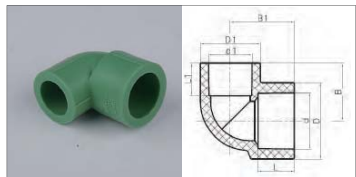
Size (mm)	Item Code	D	d	L	B
20	21020	27.4	19.2	16	26.6
25	21025	32.8	24.1	18	31.1
32	21032	42.1	31	20	36.7
40	21040	52.6	39	21.5	42.7
50	21050	65.8	49	24	50
63	21063	83.2	61.9	28	60.5
75	21075	98.7	73.7	31.5	70
90	21090	118.4	88.4	36	82
110	21110	144.7	108	42	98
160	21160	201.4	157.8	51	106



**45° Elbow**

## 45° Elbow

Size (mm)	Item Code	D	d	L
20	22020	27.4	19.2	16
25	22025	32.8	24.1	18
32	22032	42.1	31	20
40	22040	52.6	39	21.5
50	22050	65.8	49	24
63	22063	83.2	61.9	28
75	22075	98.7	73.7	31.5
90	22090	118.4	88.4	36
110	22110	144.7	108	42
160	22160	201.4	157.8	51

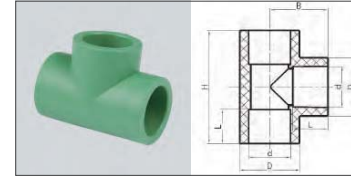


**90°reducing elbow**

## 90°reducing elbow

Size (mm)	Item Code	D	d	L	B1	B
25x20	42520	32.8	24.1	18	32	27.3
32x20	43220	42.1	31	20	32.8	31
32x25	43225	42.1	31	20	35.2	32

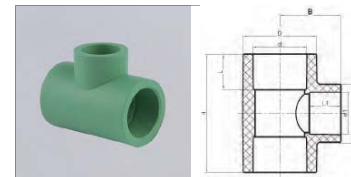
# FITTINGS



**Tee**

## Tee

Size (mm)	Item Code	D	d	L	H	B
20	23020	27.4	19.2	16	53.2	26.6
25	23025	32.8	24.1	18	61	30.5
32	23032	42.1	31	20	74	37
40	23040	52.6	39	21.5	84.7	42.35
50	23050	65.8	49	24	99.9	49.95
63	23063	83.2	61.9	28	121	60.5
75	23075	98.7	73.7	31.5	140	70
90	23090	118.4	88.4	36	164	82
110	23110	144.7	108	42	195	97.5
160	23160	201.4	157.8	51	264.5	132.3

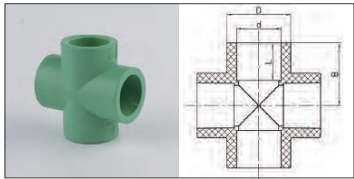


**Reducing Tee**

## Reducing Tee

Size (mm)	Item Code	D	d	L	D1	d1	L1	H	B
25x20	62520	34	24.1	18	27.4	19.2	16	58	29
32x20	63220	42.1	31	20	27.4	19.2	16	63	33
32x25	63225	42.1	31	20	32.8	24.1	18	66.8	35
40x20	64020	52.6	39	21.5	28.2	19.2	16	67	39
40x25	64025	52.6	39	21.5	34	24.1	18.5	70.5	39.5
40x32	64032	52.6	39	21.5	42.1	31	20	77.4	41.05
50x20	65020	65.8	49	24	28.2	19.2	16.5	71	42.5
50x25	65025	65.8	49	24	34	24.1	18.5	75.5	45
50x32	65032	65.8	49	24	42.1	31	20.5	83	47
50x40	65040	65.8	49	24	52.6	39	21.5	93	50.25
63x20	66320	83.2	61.9	28	28.2	19.2	16	80	50.5
63x25	66325	83.2	61.9	28	34	24.1	18	86	50.5
63x32	66332	83.2	61.9	28	42.1	31	20	91	51.5
63x40	66340	83.2	61.9	28	52.6	39	21.5	97	53.5
63x50	66350	83.2	61.9	28	65.8	49	24	110	57.5
75x32	67532	98.7	73.7	31.5	42.1	31	20	97	56.65
75x40	67540	98.7	73.7	31.5	52.6	39	21.5	105	59.4
75x50	67550	98.7	73.7	31.5	65.8	49	24	115	61.5
75x63	67563	98.7	73.7	31.5	83.2	61.9	28	127	66.4
90x40	69040	118.4	88.2	36	52.6	39	21.5	113.5	67.5
90x50	69050	118.4	88.2	36	65.8	49	24	123	69.3
90x63	69063	118.4	88.2	36	83.2	61.9	28	137.5	73.3
90x75	69075	118.4	88.2	36	98.7	73.7	31.5	148.5	77.3
110x50	61150	144.7	108	42	65.8	49	24	136	81.5
110x63	61163	144.7	108	42	83.2	61.9	28	148	83.75
110x75	61175	144.7	108	42	98.7	73.7	31.5	162.5	89.5
110x90	61190	144.7	108	42	118.4	88.4	36	174.5	95.5
160x110	61611	201.4	157.4	51	144.7	108	42	211	

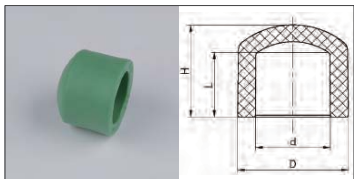
# FITTINGS



**Cross**

## Cross

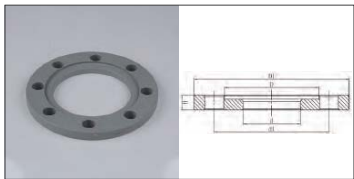
Size (mm)	Item Code	D	d	L	B
20	25020	28.2	19.2	16	27
25	25025	34	24.1	18	31.5
32	25032	42.1	31	20	37



**Cap**

## Cap

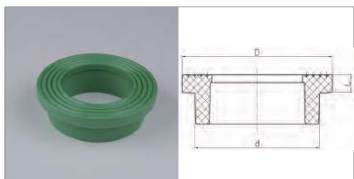
Size (mm)	Item Code	D	d	L	R	H
20	24020	28.4	19.2	17.2		24.5
25	24025	34.3	24.1	20.4		29
32	24032	42.4	31	23.6		32.8
40	24040	52.2	39	21.5		39
50	24050	65.5	49	24		47
63	24063	83	61.9	28		58.7
75	24075	98.7	73.7	31.5		59.1
90	24090	118.5	88.4	36		68
110	24110	201.6	157.6	51		74.5



**Flange**

## Flange

Size (mm)	Item Code	D	d	d1	H
32	27032	70	115	85	11
40	27040	78	135	100	13
50	27050	89	145	110	13
63	27063	103	160	125	14
75	27075	123.5	180	145	14
90	27090	140	195	160	15
110	27110	160	215	180	16
160	27160	215.2	201.6	240	19

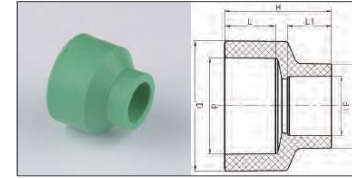


**Flange Core**

## Flange Core

Size (mm)	Item Code	D	d	L	R	H
32	26032	69	41.2	9.6		
40	26040	77.7	53.5	12.4		
50	26050	87.7	66.7	14.6		
63	26063	101.8	84	14.6		
75	26075	122	95.3	12.6		
90	26090	138.5	114	15.2		
110	26110	157.8	138.5	18		
160	26160	214.5	201.6	18.5		

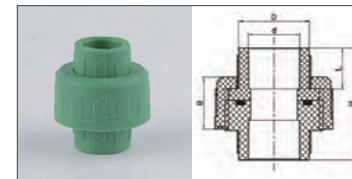
# FITTINGS



**Reducer**

## Reducer

Size (mm)	Item Code	D	d	L	D1	d1	L1	H
25x20	32520	32.4	24.1	18	27.4	19.2	16	34
32x20	33220	42	31	20	27.4	19.2	16	37.3
32x25	33225	42	31	20	32.4	24.1	18	41.2
40x20	34020	52.2	39	21.5	28.2	19.2	16	39
40x25	34025	52.2	39	21.5	32.4	24.1	18	42
40x32	34032	52.2	39	21.5	42	31	20	44
50x20	35020	65.5	49	24	28.2	19.2	16	42
50x25	35025	65.5	49	24	32.4	24.1	18	42.5
50x32	35032	65.5	49	24	42	31	20	47
50x40	35040	65.5	49	24	52.2	39	21.5	48.5
63x20	36320	83	61.9	28	28.2	19.2	16	48
63x25	36325	83	61.9	28	32.4	24.1	18	52.5
63x32	36332	83	61.9	28	42	31	20	50
63x40	36340	83	61.9	28	52.2	39	21.5	56
63x50	36350	83	61.9	28	65.5	49	24	56
75x32	37532	98.7	73.7	31.5	42	31	20	60
75x40	37540	98.7	73.7	31.5	52.2	39	21.5	62
75x50	37550	98.7	73.7	31.5	65.5	49	24	64
75x63	37563	98.7	73.7	31.5	83	61.9	28	61.5
90x40	39040	118.5	88.4	36	52.2	39	21.5	63
90x50	39050	118.5	88.4	36	65.5	49	24	69.5
90x63	39063	118.5	88.4	36	83	61.9	28	74
90x75	39075	118.5	88.4	36	98.7	73.7	31.5	77
110x50	31150	144.5	108	42	65.5	49	24	68.5
110x63	31163	144.5	108	42	83	61.9	28	80
110x75	31175	144.5	108	42	98.7	73.7	31.5	81
110x90	31190	144.5	108	42	118.5	88.4	36	86
160x110	31611	201.5	157.2	50.5	144.5	108	42	90

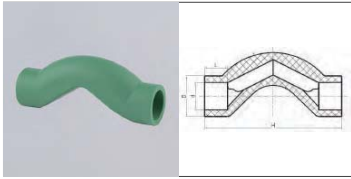


**Plastic Union**

## Plastic Union

Size (mm)	D	d	L	B	H
dn20	25.9	19.25	17.7	23	49.2
dn25	32.7	24	18.3	24.2	51.1
dn32	41.5	31	22	25.4	58.7

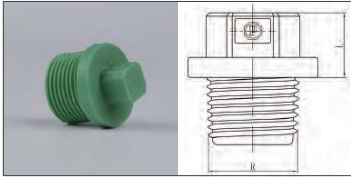
# FITTINGS



Over Bridge Bow (short)

Over Bridge Bow (short)

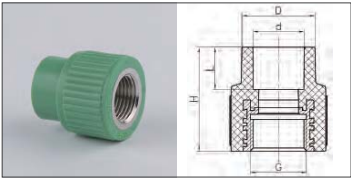
Size (mm)	Item Code	D	d	L	H
20	29020C	28.2	19.2	16	95.5
25	29025C	34	24.1	18	121
32	29032C	42.5	31	20	154



Pipe Plug

Pipe Plug

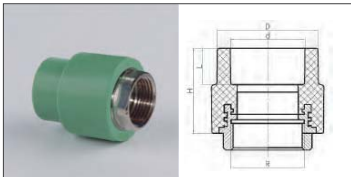
Size (mm)	Item Code	D	d	L	R	H
1/2"	30020	1/2"		14.5		
3/4"	30025	3/4"		16		



Female Threaded Coupling

Female Threaded Coupling

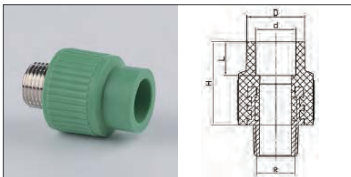
Size (mm)	Item Code	D	d	L	H	G
20xRP1/2"f	702012	27.4	19.2	16	39.5	1/2"
20*RP3/4"f	702034	27.4	19.2	16	40.5	3/4"
25xRP1/2"f	702512	32.8	24.1	18	41.5	1/2"
25xRP3/4"f	702534	32.8	24.1	18	42.5	3/4"
32xRP3/4"f	703234	42.1	31	20	45.2	3/4"



Female Threaded Coupling

Female Threaded Coupling

Size (mm)	Item Code	D	d	L	H	G
32xRP1"f	703210	42.1	31	20	46	1"
40xRP1-1/4"f	704014	52.6	39	21.5	47.5	1-1/4"
50xRP1-1/2"f	705012	65.8	49	24	56.2	1-1/2"
63xRP2"f	706320	83.2	61.9	28	61	2"

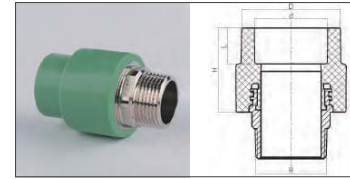


Male Threaded Coupling

Male Threaded Coupling

Size (mm)	Item Code	D	d	L	H	G
20xR1/2"m	712012	27.4	19.2	16	39.5	1/2"
20*R3/4"m	712034	27.4	19.2	16	40.5	3/4"
25xR1/2"m	712512	32.8	24.1	18	41.5	1/2"
25xR3/4"m	712534	32.8	24.1	18	42.5	3/4"
32xR3/4"m	713234	42.1	31	20	45.2	3/4"

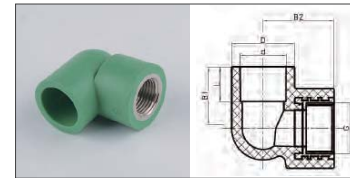
# FITTINGS



Male Threaded Coupling

Male Threaded Coupling

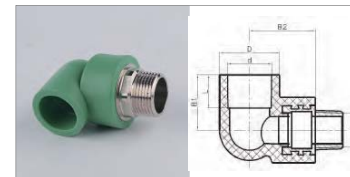
Size (mm)	Item Code	D	d	L	H	R
32xR1"m	713210	42.1	31	20	46	1"
40xR1-1/4"m	714014	52.6	39	21.5	47.5	1-1/4"
50xR1-1/2"m	715012	65.8	49	24	56.2	1-1/2"
63xR2"m	716320	83.2	61.9	28	61	2"



Female Threaded Elbow

Female Threaded Elbow

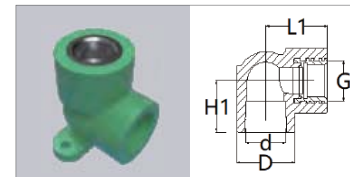
Size (mm)	Item Code	D	d	L	B1	B2	R
20xRP1/2"f	722012	27.4	19.2	16	27	33.5	1/2"
20xRP3/4"f	722034	27.4	19.2	16	30	34.5	3/4"
25xRP1/2"f	722512	32.8	24.1	18	30	36	1/2"
25xRP3/4"f	722534	32.8	24.1	18	32	37	3/4"
32xRP1/2"f	723212	42.1	31	20	34	40	1/2"
32xRP3/4"f	723234	42.1	31	20	34	42	3/4"
32xRP1"f	723210	42.1	31	20	38.5	39	1"



Male Threaded Elbow

Male Threaded Elbow

Size (mm)	Item Code	D	d	L	B1	B2	R
20xR1/2"m	752012	27.4	19.2	16	27	33.5	1/2"
20xR3/4"m	752034	27.4	19.2	16	30	34.5	3/4"
25xR1/2"m	752512	32.8	24.1	18	30	36	1/2"
25xR3/4"m	752534	32.8	24.1	18	32	37	3/4"
32xR1/2"m	753212	42.1	31	20	34	40	1/2"
32xR3/4"m	753234	42.1	31	20	34	42	3/4"
32xR1"m	753210	42.1	31	20	38.5	39	1"

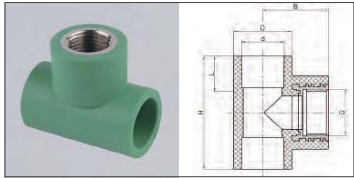


Female Threaded Elbow W/disk

Female Threaded Elbow W/disk

Size (mm)	Item Code	D	d	L	H
20xRP1/2"f	742012	28.4	19.2	16	45.7
25xRP1/2"f	742512	34	24	18	45.7

# FITTINGS



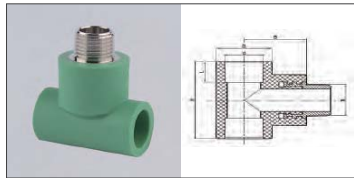
Female Threaded Tee

## Female Threaded Tee

Size (mm)	Item Code	D	d	L	H	R	B
20xRP1/2"f	752012	27.4	19.2	16	54.5	1/2"	33.5
20xRP3/4"f	752034	27.4	19.2	16	59.5	3/4"	34.5
25xRP1/2"f	752512	32.8	24.1	18	58.8	1/2"	36
25xRP3/4"f	752534	32.8	24.1	18	64	3/4"	37
32xRP1/2"f	753212	42.1	31	20	65	1/2"	40.5
32xRP3/4"f	753234	42.1	31	20	68	3/4"	42
32xRP1"f	753210	42.1	31	20	77	1"	39

## Male Threaded Tee

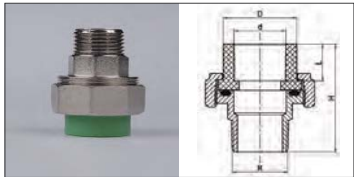
Size (mm)	Item Code	D	d	L	H	R	B
20xR1/2"m	762012	27.4	19.2	16	54.5	1/2"	33.5
20xR3/4"m	762034	27.4	19.2	16	59.5	3/4"	34.5
25xR1/2"m	762512	32.8	24.1	18	58.8	1/2"	36
25xR3/4"m	762534	32.8	24.1	18	64	3/4"	37
32xR1/2"m	763212	42.1	31	20	65	1/2"	40.5
32xR3/4"m	763234	42.1	31	20	68	3/4"	42
32XR1"m	763210	42.1	31	20	77	1"	39



Male Threaded Tee

## Male Threaded Union

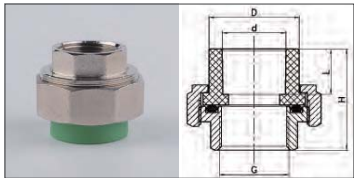
Size (mm)	Item Code	D	d	L	R	H
20xR1/2"m	772012	28.2	19.2	16	1/2"	52
25xR3/4"m	772534	34.8	24.1	18	3/4"	58.5
32xR1"m	773210	42.1	31	20	1"	64.5
40xR1-1/4"m	774014	52.6	39	21.5	1-1/4"	74.5
50xR1-1/2"m	775012	65.8	49	24	1-1/2"	84.5
63xR2"m	776320	83.2	61.9	28	2"	95.5



Male Threaded Union

## Female Threaded Union

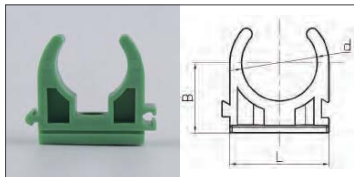
Size (mm)	Item Code	D	d	L	G	H
20xRP1/2"f	782012	28.2	19.2	16	1/2"	38.5
25xRP3/4"f	782534	34.8	24.1	18	3/4"	42.5
32xRP1"f	783210	42.1	31	20	1"	47.5
40xRP1-1/4"f	784014	52.6	39	21.5	1-1/4"	56.7
50xRP1-1/2"f	785012	65.8	49	24	1-1/2"	64.5
63xRP2"f	786320	83.2	61.9	28	2"	73



Female Threaded Union

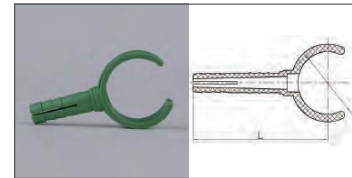
## C-Type Clip

Size (mm)	Item Code	D	L	d
20	90020C	19.1	25.2	17.7
25	90025C	23.9	30.4	20
32	90032C	30.6	37.5	23.4



C-Type Clip

# FITTINGS



Pipe Clip(short)

## Pipe Clip(Short)

Size (mm)	Item Code	d	L	R	H
20mm	90020-S	19.1	65.6		
25mm	90025-S	23.9	68.6		
32mm	90032-S	30.6	72.4		



Metal Pipe Clamp

## Metal Pipe Clamp

Size (mm)	Item Code	D	L1	L2	B
20	90020-H	20.2	65.6	79.7	35
25	90025-H	25.2	68.6	85.4	41
32	90032-H	32.2	72.4	93.1	48



Welding Die

## Welding Die

Size (mm)	Item Code	M
20	92020	8
25	92025	8
32	92032	8
40	92040	8
50	92050	8
63	92063	8
75	92075	10
90	92090	10
110	92110	10
160	92160	12



Pipe Cutter

## Pipe Cutter

Size (mm)	Item Code
20-40mm	93040
16-50mm	93063
16-50mm	93063
50-125mm	93025



## Welding Machine

Size (mm)	Item Code
98032	20-32mm
98063	20-63mm
98110	75-110mm



## Pipe Cutter

Size (mm)	Item Code
16-50mm	93063
50-125mm	93025



## Hole Repair Die

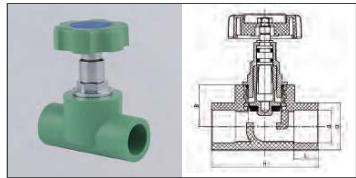
Size (mm)	Item Code
7mm	95007
11mm	95011



## Hole Repair Bar

Size (mm)	Item Code
7-11mm	96711

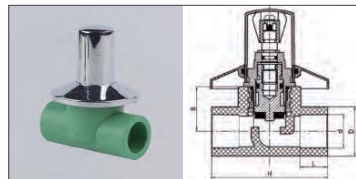
# VALVE SERIES



Stop Valve

## Stop Valve

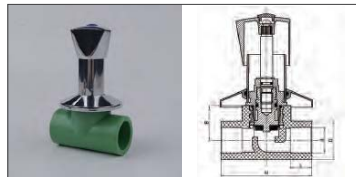
Size (mm)	Item Code	D	d	L	B	H
20mm	80020A	28.2	19.2	16	26	71
25mm	80025A	34	24.1	18	31	84
32mm	80032A	42.1	31	20	33.7	84.5
40mm	80040A	52.6	39	21.5	42.6	87
50mm	80050A	65.8	49	24	53	110.4
63mm	80063A	83.2	61.9	28	61.5	126



Concealed Valve(Short)

## Concealed Valve(Short)

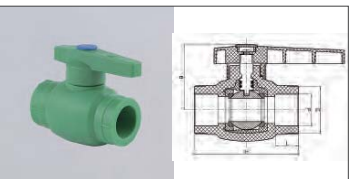
Size (mm)	Item Code	D	d	L	B	H
20mm	85020	28.4	19.2	16	26	67.3
25mm	85025	34.5	24.1	17.8	31	78
32mm	85032	43	31	19.8	33.7	79.6



Concealed Valve

## Concealed Valve

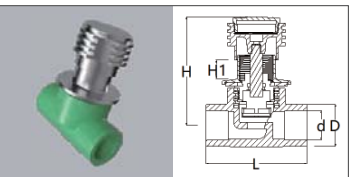
Size (mm)	Item Code	D	d	L	B	R
20mm	80020B	27.4	19.2	16	26	67.3
25mm	80025B	32.8	24.1	18	31	78
32mm	80032B	42.1	31	20	33.7	79.6



Plastic Valve with Brass

## Plastic Valve with Brass

Size (mm)	Item Code	D	d	L	B1	H
20mm	85020B	28.2	19.2	17.5	46.8	74.2
25mm	85025B	35.8	24.1	19	50.4	79
32mm	85032B	43.2	31	19.5	59.4	86

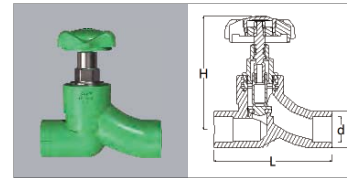


Quick open valve (Long)

## Quick open valve (Long)

Size (mm)	H	H1	L	D	d
dn20	97	14	78	28	20
dn25	87	23	82	34	25

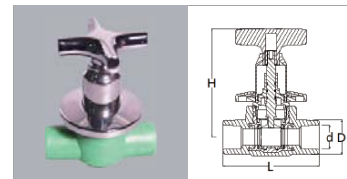
# VALVE SERIES



Stop valve(high flow)

## Stop valve(high flow)

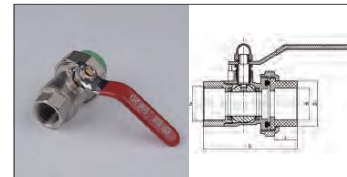
Size (mm)	H	L	D	d
dn20	97	95	29	20
dn25	108	111	35	25
dn32	128	138	44	32



copper core concealed valve-full passage

## Copper core concealed valve-full passage

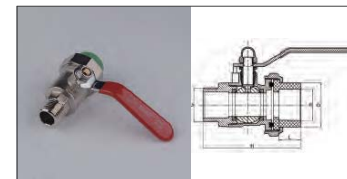
Size (mm)	H	L	D	d
dn20	107	97	30	20
dn25	119	97	35	25



Single Union Ball Cock(Female)

## Single Union Ball Cock(Female)

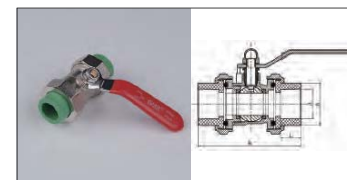
Size (mm)	Item Code	D	d	L	G	H
20xRP1/2"f	832012	28.2	19.2	16	1/2"	70.4
25xRP3/4"f	832534	34.8	24.1	18	3/4"	79.5
32xRP1"f	833210	42.1	31	20	1"	86.8



Single Union Ball Cock(Male)

## Single Union Ball Cock(Male)

Size (mm)	Item Code	D	d	L	H	R
20*1/2"M	842012	28.2	19.2	16	83	1/2"
25*3/4"M	842534	34.8	24.1	18	91	3/4"
32*1"M	843210	42.1	31	20	102	1"



Double Union Ball Cock

## Double Union Ball Cock

Size (mm)	Item Code	D	d	L	H
20x20mm	82020	28.2	19.2	16	83
25x25mm	82025	34.8	24.1	18	94
32x32mm	82032	42.1	31	20	105
40x40mm	82040	52.6	39	21.5	129
50x50mm	82050	65.8	49	24	148
63x63mm	82063	83.2	61.9	28	177

## HIGH-END PRODUCT(S2)



Stop Valve

Size (mm)	Item Code
φ20	
φ25	

Stop Valve



Reducing Tee

Size (mm)	Item Code
φ20	
φ25	

Reducing Tee



Double Female Elbow with Tap Connector

Size (mm)	Item Code
φ20	
φ25	

Double Female Elbow with Tap Connector



Female Threaded Elbow

Size (mm)	Item Code
φ20	
φ25	

Female Threaded Elbow



Female Threaded Tee

Size (mm)	Item Code
φ20	
φ25	

Female Threaded Tee



Reducing Elbow

Size (mm)	Item Code
φ20	
φ25	

Reducing Elbow



Reducer

Size (mm)	Item Code
φ20	
φ25	

Reducer



Female Threaded Elbow(Long)

Size (mm)	Item Code
φ20	
φ25	

Female Threaded Elbow(Long)



Female Threaded Coupling

Size (mm)	Item Code
φ20	
φ25	

Female Threaded Coupling



Male Threaded Tee

Size (mm)	Item Code
φ20	
φ25	

Male Threaded Tee



Male Threaded Elbow

Size (mm)	Item Code
φ20	
φ25	

Male Threaded Elbow



90° Elbow

Size (mm)	Item Code
φ20	
φ25	

90° Elbow



Coupling

Size (mm)	Item Code
φ20	
φ25	

Coupling



Bypass Bend

Size (mm)	Item Code
φ20	
φ25	

Bypass Bend



Male Threaded Coupling

Size (mm)	Item Code
φ20	
φ25	

Male Threaded Coupling



45° Elbow

Size (mm)	Item Code
φ20	
φ25	

45° Elbow



Tee

Size (mm)	Item Code
φ20	
φ25	

Tee

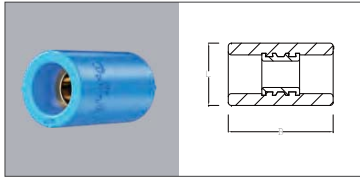


Orthodrome Elbow

Size (mm)	Item Code
φ20	
φ25	

Orthodrome Elbow

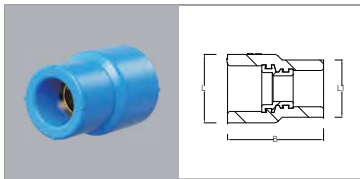
# PPR COPPER PIPE FITTINGS



Coupling

## Coupling

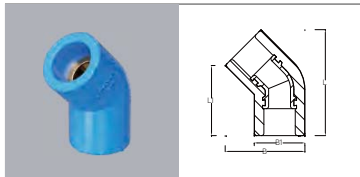
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20	30		50	
φ25	36		62	
φ32	44		67	



Reducer

## Reducer

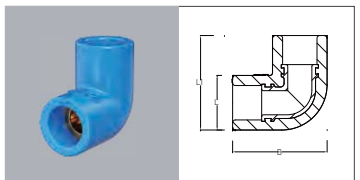
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ25 × 20	36	30	51	
φ32 × 20	44	30	54	
φ32 × 25	44	36	55	



45° Elbow

## 45° Elbow

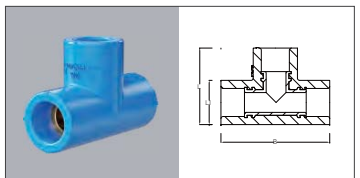
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20	63	42	47	30
φ25	69	46	52	34
φ32	80	49	64	44



90° Elbow

## 90° Elbow

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20	52	30	52	
φ25	62	32	62	
φ32	72	44	72	

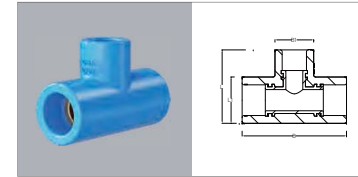


Tee

## Tee

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20	52	30	74	
φ25	62	36	88	
φ32	72	44	100	

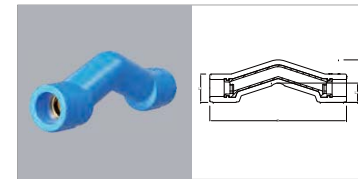
# PPR COPPER PIPE FITTINGS



Reducing Tee

## Reducing Tee

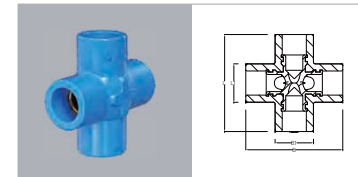
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ25 × 20	57	36	81	30
φ32 × 20	65	44	85	30
φ32 × 25	68	44	91	36



Over Bridge Bow

## Over Bridge Bow

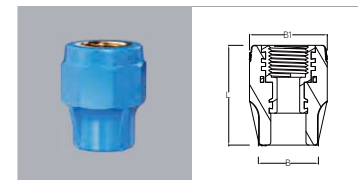
Size (mm)	L (mm)	L1 (mm)	B (mm)	L2 (mm)
φ20	47	32	152	21
φ25	57	36	166	27



Cross

## Cross

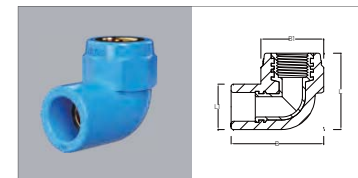
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20	76	30	76	30
φ25	86	36	86	36



Female Threaded Coupling

## Female Threaded Coupling

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20 × 1/2	50		30	39
φ25 × 1/2	56		36	39
φ25 × 3/4	56		36	46
φ32 × 1	66		44	58

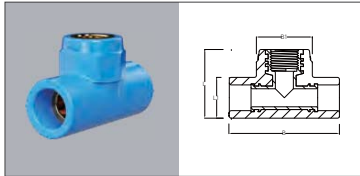


Female Threaded Elbow

## Female Threaded Elbow

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
φ20 × 1/2	51	31	61	30
φ25 × 1/2	57	36	65	42
φ25 × 3/4	58	36	70	48
φ32 × 1	93	44	84	61

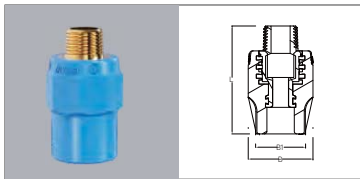
# PPR COPPER PIPE FITTINGS



Female Threaded Tee

Female Threaded Tee

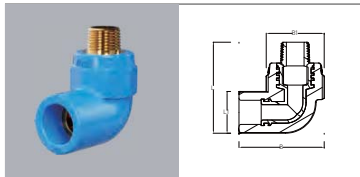
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	65		39	30
Φ25 × 1/2	71		39	36
Φ25 × 3/4	71		46	36
Φ32 × 1	102		58	44



Male Threaded Coupling

Male Threaded Coupling

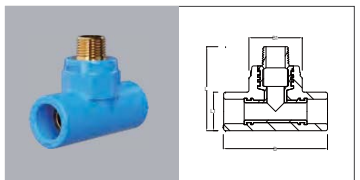
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	66	30	30	42
Φ25 × 1/2	72	36	36	42
Φ25 × 3/4	73	36	70	48
Φ32 × 1	109	44	84	61



Male Threaded Elbow

Male Threaded Elbow

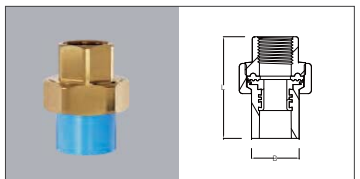
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20	63	42	47	30
Φ25	69	46	52	34
Φ32	80	49	64	44



Male Threaded Tee

Male Threaded Tee

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	66	30	81	42
Φ25 × 1/2	72	36	88	42
Φ25 × 3/4	73	36	92	48



Female Threaded Union

Female Threaded Union

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	61		28	
Φ25 × 3/4	66		34	
Φ32 × 1	76		42	

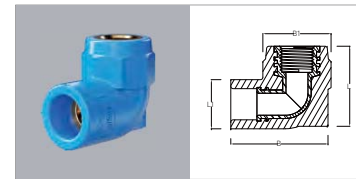
# PPR COPPER PIPE FITTINGS



Male Threaded Union

Male Threaded Union

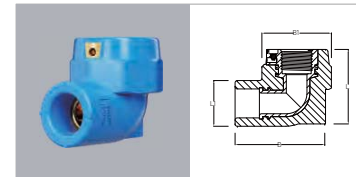
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	75		28	
Φ25 × 3/4	81		34	
Φ32 × 1	93		42	



Assembled Female Threaded Elbow

Assembled Female Threaded Elbow

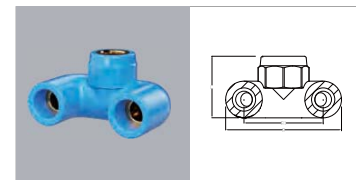
Size (mm)	L (mm)	L1 (mm)	B (mm)	L2 (mm)
Φ20 × 1/2	49	30	60	42
Φ25 × 1/2	54	36	66	42



Assembled Equipotential Female Threaded Elbow

Assembled Equipotential Female Threaded Elbow

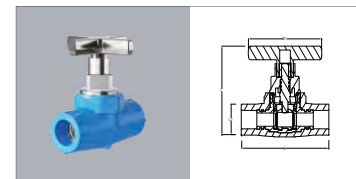
Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	49	30	59	46
Φ25 × 1/2	55	36	66	46



Assembled U-Type Female Threaded Tee

Assembled U-Type Female Threaded Tee

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
Φ20 × 1/2	50		95	65
Φ25 × 1/2	57		111	75

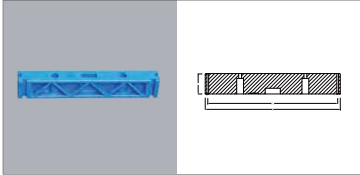


Copper Core Ball Valve

Copper Core Ball Valve

Size (mm)	L (mm)	L1 (mm)	B (mm)	B2 (mm)
Φ20	91	31	90	75
Φ25	102	38	97	75
Φ32	110	46	108	75

# PPR COPPER PIPE FITTINGS



Assembled Connection Rod

Size (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)
20-25	25	166	150	

Assembled Connection Rod



Pipe Cutter

Size (mm)	Item Code
20-32	

Pipe Cutter



Cutting Disk

Size (mm)	Item Code
20-32	

Cutting Disk



Cutting fixed base

Size (mm)	Item Code
20-32	

Cutting fixed base



Port Circulator

Size (mm)	Item Code
20-32	

Port Circulator



Special welding die

Size (mm)	Item Code
φ20	
φ25	
φ32	

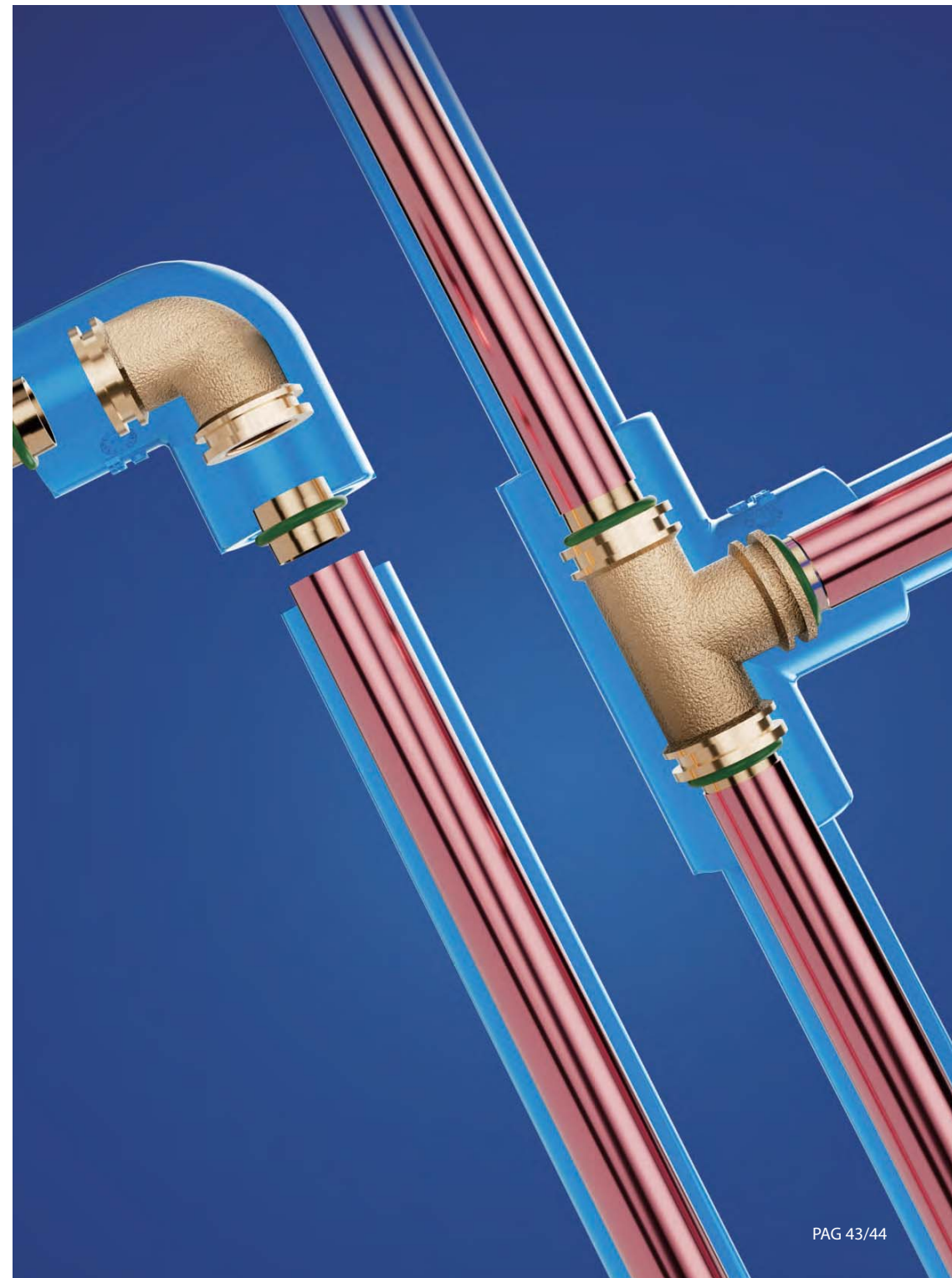
Special welding die



Copper Ring Connection

Size (mm)	Item Code
φ20	
φ25	
φ32	

Copper Ring Connection



# Special Functional Fittings



## High Flow Fitting Series



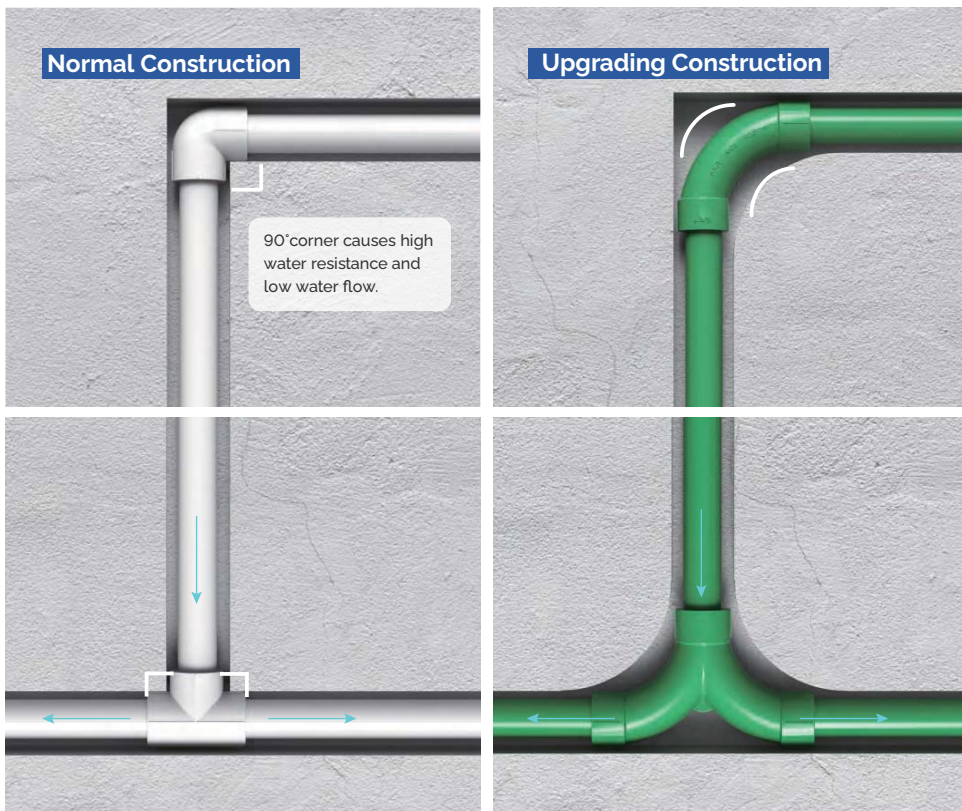
<b>Orthodrome Elbow</b>	<b>Y-Type Tee</b>	<b>Orthodrome Reducing Tee</b>	<b>Orthodrome Tee</b>
<b>Size(mm)</b> dn20 dn25 dn32	<b>Size(mm)</b> dn20 dn25	<b>Size(mm)</b> dn25×20×25	<b>Size(mm)</b> dn20 dn25 dn32

### Increase water flow:

Large arc design reduces water resistance.

### Convenient construction:

Arrow marks the direction of water flow, which is convenient for construction.



## Extended Fitting Series



Female Threaded Elbow (Long) Female Threaded Elbow (Long II) Female Threaded Tee (Long)

<b>Female Threaded Elbow (Long)</b>
<b>Size(mm)</b> dn20×1/2" dn25×1/2"
<b>Female Threaded Elbow (Long II)</b>
<b>Size(mm)</b> dn25×1/2"
<b>Female Threaded Tee (Long)</b>
<b>Size(mm)</b> dn20×1/2"×20
dn25×1/2"×25

### Match with thick tiles:

Compared with the common threaded fittings, the water outlet section is longer to meet the application scenarios of thicker cabinet backsplash or tile.

### Convenient construction:

longer length out of the wall (77.5mm) makes it not necessary to be connected with other fittings, and easy to install.



## Access Wall Fitting Series



Access Wall Coupling (Right)	Access Wall Coupling (Left)	Access Wall Coupling (Medium)	Access Wall Tee
Size(mm) dn20 dn25	Size(mm) dn20 dn25	Size(mm) dn20 dn25	Size(mm) dn20 dn25

**Efficient construction:** replace the combination of multiple pipe fittings and reduce the number of welding times.

**Long center distance:** the long pipe center distance ensures the requirement of access to the wall.

**Increase water flow:** large arc design reduces water resistance and enables a smooth flow of water.



## Overbridge Fitting Series



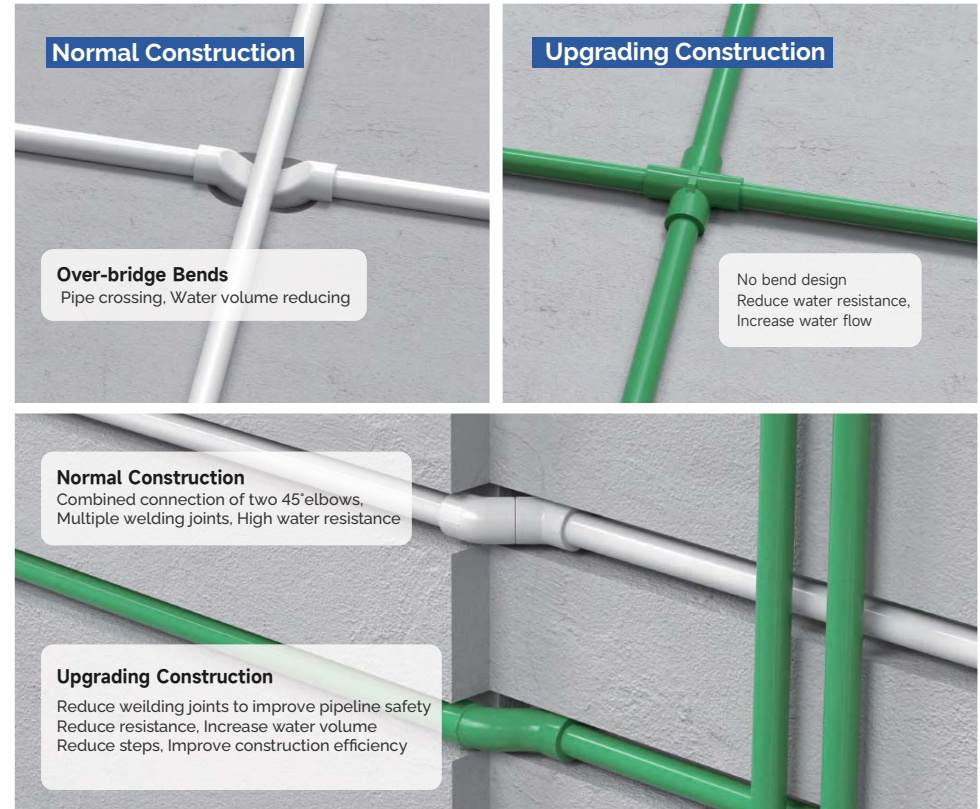
Over-Bridge Cross	Reducing Over-Bridge Cross	Over-Bridge Bend	Climbing Coupling
Size(mm) dn20 dn25	Size(mm) dn25×20	Size(mm) dn20 dn25 dn32	Size(mm) dn20 dn25

**Reduce the difficulty of grooving:**

ordinary over-bridge bends need to consider the depth of the groove, while the overpass four-way reduces the difficulty of grooving.

**Reduce the number of welding:**

Climbing coupling replaces two 45° elbows.



## Equipotential Fitting Series



Equipotential Female Threaded Elbow

Size(mm)	dn20×1/2"
	dn25×1/2"

Equipotential Female Threaded Tee

Size(mm)	dn20×1/2"×20
	dn25×1/2"×25

Equipotential Female Threaded Coupling with Tap Connector

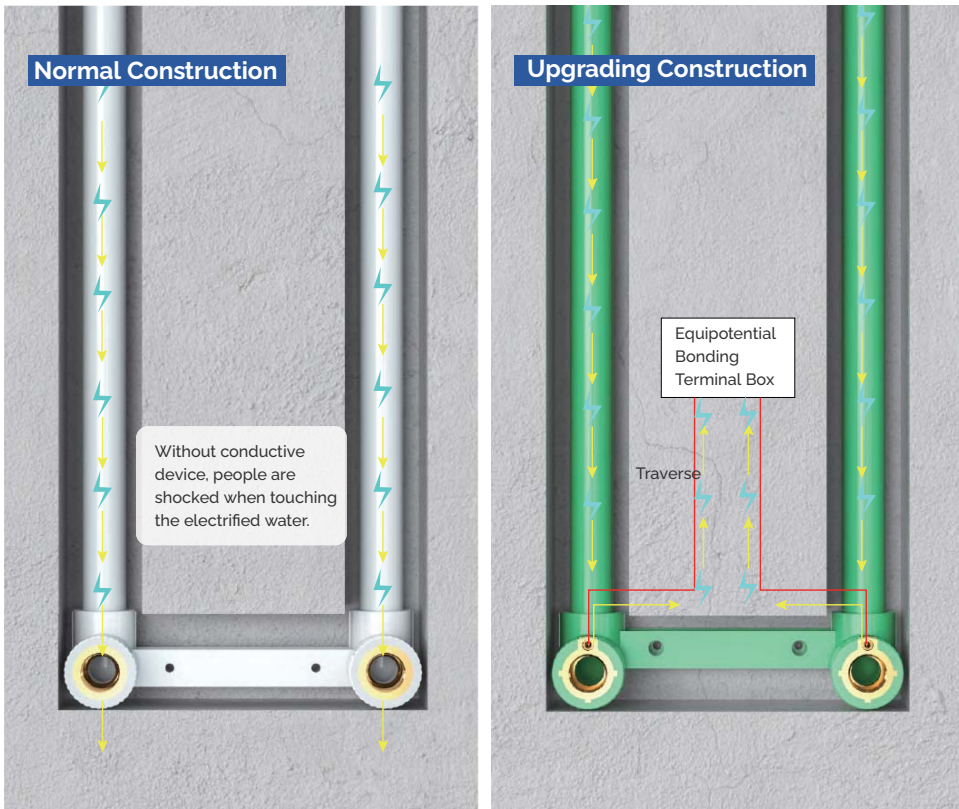
Size(mm)	dn20×1/2"
	dn25×1/2"

Equipotential Female Threaded Elbow with Tap Connector

Size(mm)	*dn20×1/2"
	*dn25×1/2"

### Preventing electric shock:

Mainly prevent electric shock accidents and ensure the safety of water.



## Tap-Connector Fitting Series



Female Threaded Coupling with Tap Connector

Size(mm)	dn20×1/2"
	dn25×1/2"

Female Threaded Elbow with Tap Connector

Size(mm)	dn20×1/2"
	dn25×1/2"

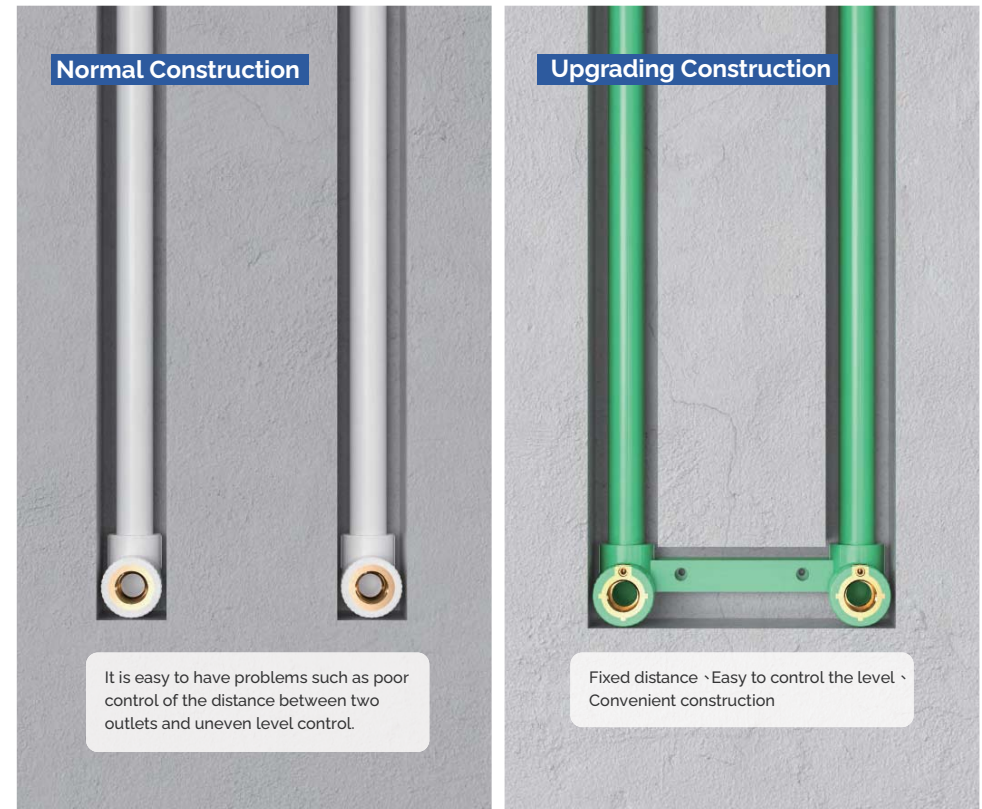
Female Threaded Tee with Tap Connector

Size(mm)	dn20×1/2"×20
	dn25×1/2"×25

Shower Faucet Locator

Size(mm)	1/2"
----------	------

It's mainly used for hot and cold water connections in shower



## Assembled Fitting Series



Assembled Equipotential Female Threaded Tee (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Equipotential Female Threaded Tee (with hole)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Equipotential Female Threaded Elbow (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Equipotential Female Threaded Elbow (with hole)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25



Assembled Equipotential U-Type Female Threaded Tee (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Equipotential U-Type Female Threaded Tee (with hole)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Female Threaded Elbow (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Female Threaded Elbow (with hole)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25



Assembled Female Threaded Tee (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled Female Threaded Tee (with hole)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled U-Type Female Threaded Tee (with pin)

Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Assembled U-Type Female Threaded Tee (with hole)

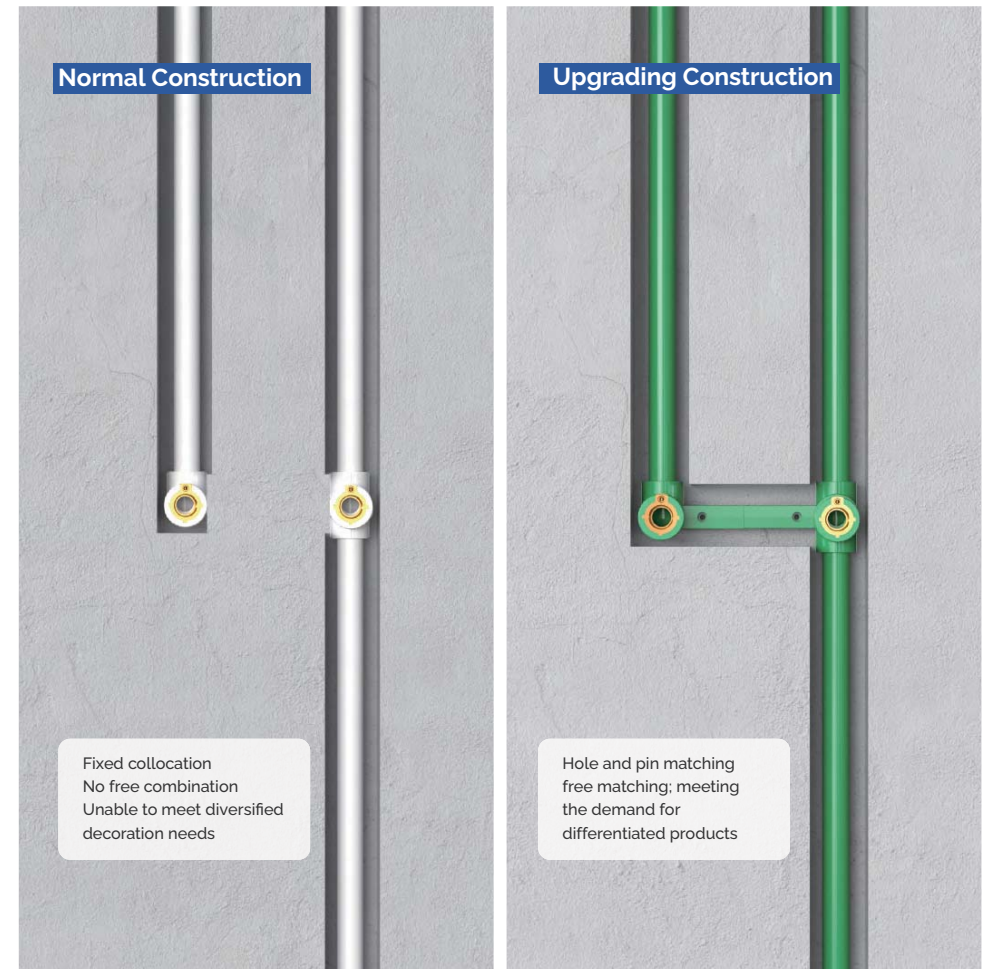
Size(mm) dn20×1/2"×20  
dn25×1/2"×25

Meet individual needs:

assembled fittings can make any combination of female threaded elbow, female threaded tee, U-type female threaded tee, while products of different colors and specifications can be mixed and matched to meet the needs of differentiated products.

Arbitrary combination:

hole and pin matching; free matching; easy installation; 150mm center distance after assembling.



Normal Construction

Fixed collocation  
No free combination  
Unable to meet diversified decoration needs

Upgrading Construction

Hole and pin matching  
free matching; meeting the demand for diversified products

## Other Fittings



U-Type Female Threaded Tee for bathing

Size(mm)	dn20×1/2"×20
	dn25×1/2"×25

### Specialized for bathing

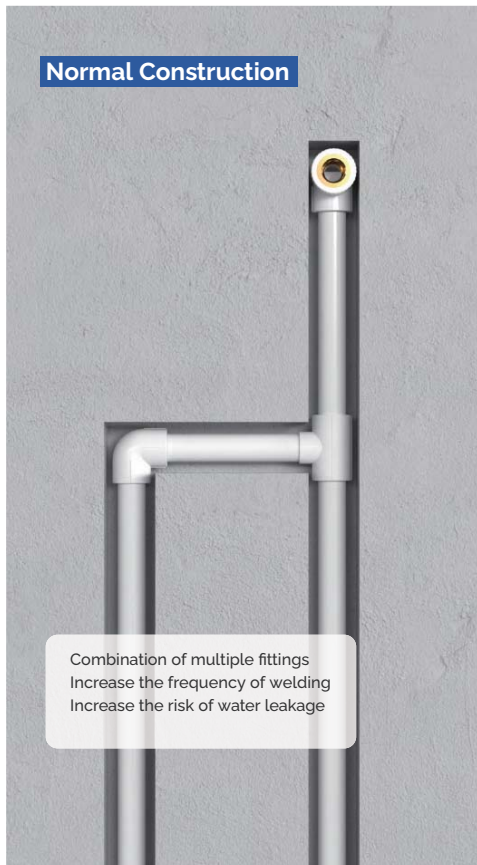
It's primarily used in hot water circulation system, and the position of it is mainly in the outlet of the water supply point.

### No combination required

It can replace the orthodrome elbow, tee connector, female threaded tee, female threaded elbow and other multi-fittings combination connection.

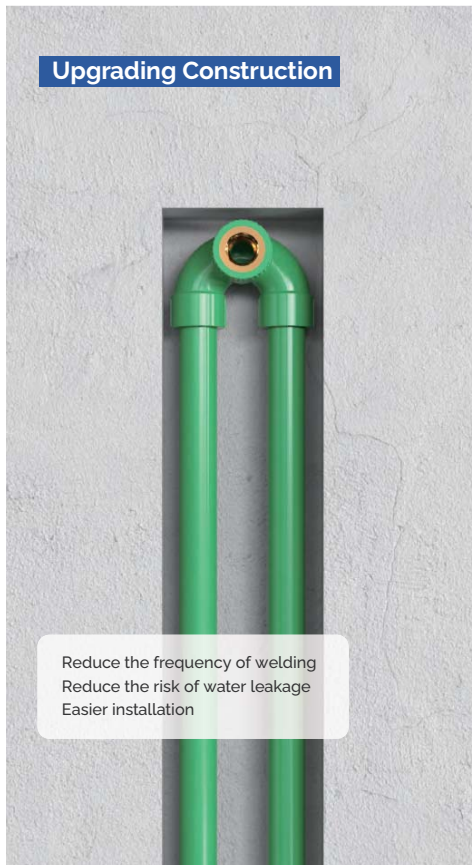
### Efficient construction

It helps to reduce the number of welding, and it is quick and easy to install with beautiful modeling.



Normal Construction

Combination of multiple fittings  
Increase the frequency of welding  
Increase the risk of water leakage



Upgrading Construction

Reduce the frequency of welding  
Reduce the risk of water leakage  
Easier installation



3D Tee

Size(mm) dn20 dn25

3D Cross

Size(mm) dn20 dn25

### Main application:

Installation of corner branch pipeline

### Convenient construction:

more convenient construction without other combinations of connections



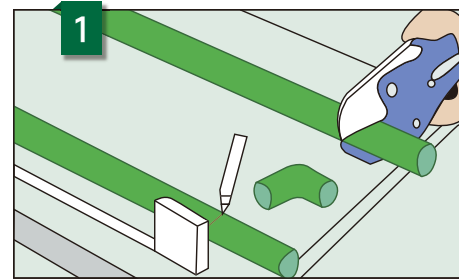
Normal Construction



Upgrading Construction

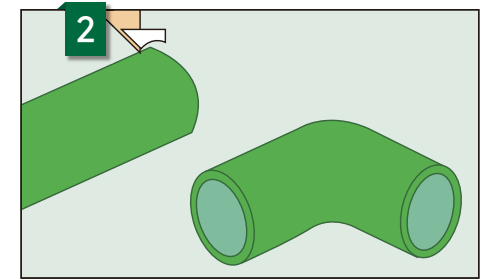


## Installation Guide (Welding Procedure)



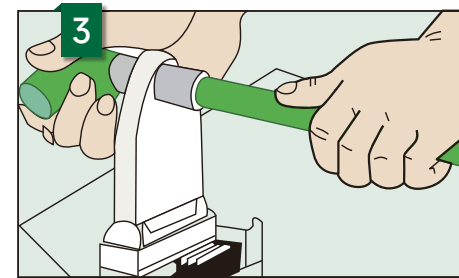
### Cut Pipe

When cutting pipe, make sure that the end face is perpendicular to the pipe axis, and remove burrs from the cut pipe section.



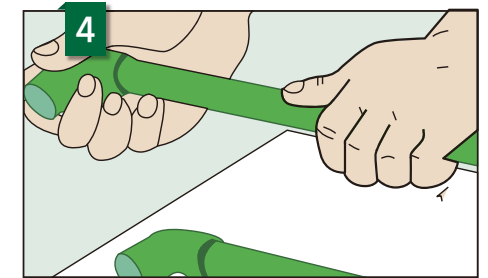
### Mark the depth of the welding

Measure and mark the depth of the welding at the end of the pipe with a special ruler and a suitable pen.



### Heat the pipe and fitting

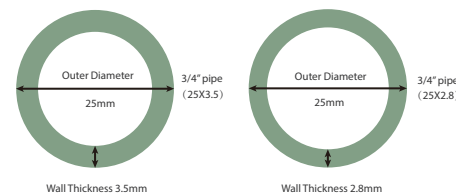
When the fusion welder is heated to 260°C (the indicator light turns green), push the pipe and fittings into the fusion welder die at the same time.



### Insert to the indicated depth

Remove the heated pipe and fittings at the same time and insert them quickly without rotation to the indicated depth, so that a uniform concave edge is formed at the joint until it cools down to form a firm and perfect bond. The pipe must not be inserted too shallowly or too deeply, otherwise it will result in shrinkage or lack of security.

## Tips



Outer Diameter (dn)	Wall Thickness(en)				Corresponding thread specification
	S5	S4	S3.2	S2.5	
20	2.0	2.3	2.8	3.4	1/2"
25	2.3	2.8	3.5	4.2	3/4"
32	2.9	3.6	4.4	5.4	1"



## PROJECT CASE

Shanghai International World Financial Center  
 Snow Dragon South Board Research Ship  
 German Consulate in Shanghai  
 Nanjing Langsey international block  
 Yufeng Garden  
 Changcheng County  
 New Oriental  
 Century Garde



Shenyang Industrial university  
 Rongqiao Real Estate in Xi'an  
 Xi'an Zhonghai Real Estate  
 Xi'an Merlin Pick Garden  
 Vanke Xi'an New Town  
 Xi'an Fuli City  
 Changqing Oilfield Lakeside Garden  
 Beijing Hongshan Community

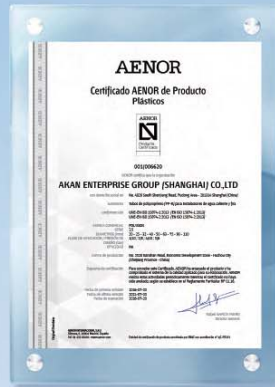


Renovation of Caoshanling Old City  
 Dalian Wanda Pearl Square  
 Yadu Garden, Tianjin Tanggu Development Zone  
 Beijing Military District Tianjin Nursing Home  
 Baoding Huazhong Holiday Athens City  
 Baoding Jinpeng Swan Bay  
 Qinhuangdao Yanda Mangrove Bay  
 Qinhuangdao Beidaihe Guanhai Garden

Dongwangling New Village Reconstruction Project  
 Shijiazhuang Mocha Town  
 Sanmenxia Civil Service Community  
 Zhoukou Power Community  
 Shangqiu City Pipe Network  
 Zhongyuan Lida High Speed Rail Package  
 Dalian Wanda Mansion  
 Shenyang Olympic Sports Center

Fushun Big Ethylene Park  
 Anshan Fortune Center  
 Tianjin Tanggu Offshore Oil  
 Tianjin Tanggu Free Trade Zone Logistics Building  
 Tangshan Guangyuan Garden  
 Taicang Shanghai Holiday Garden  
 Changzhou Lajun Garden

# CERTIFICATES



CNAS Laboratory Accreditation, authorized by the China National Accreditation Service for Conformity Assessment

AAA Grade Demonstration Unit for Integrity in Business Operations

AAA Grade Quality Service Reputation Unit

China Environmental Labeling Product Certification

National High-Tech Enterprise

Vice President Unit of the Pipeline Branch of the Shanghai Chemical Building Materials Industry Association

Contributing Unit to the "White Paper on the Development of China's Comfortable Home Industry"

Top Ten Brands of Plastic Pipes

Top Ten Brands of Underfloor Heating Systems in China

Top Ten Brands in the Chinese Home Pipeline Industry

National Leading Brand in the Plastic Pipeline Industry

Zhejiang Manufacturing Certification

"China Brand" Strategic Partner

Xinhua Water Conservation Certification

Participated in drafting the "Insulated Conduit Piping System for Building Electrical Works"

Participated in drafting the "Short Pitch Steel-Plastic Composite Internal Spiral Pipe for Building Drainage"

Participated in drafting "Determination of Impact Strength of Thermoplastic Plastic Pipes - Part 1/Part 2"

Participated in drafting "Polypropylene Piping System for Hot and Cold Water - Part 1/Part 2"

Participated in drafting the "Plastic Vane Type Vortex Inhibitor for Building Drainage"

Participated in drafting the "Test Method for Oxygen Permeability of Multilayer Composite Plastic Pipes"

Participated in drafting the group standard "Insulated Conduit Piping System for Building Electrical Works"