Installation Methods of PSP system

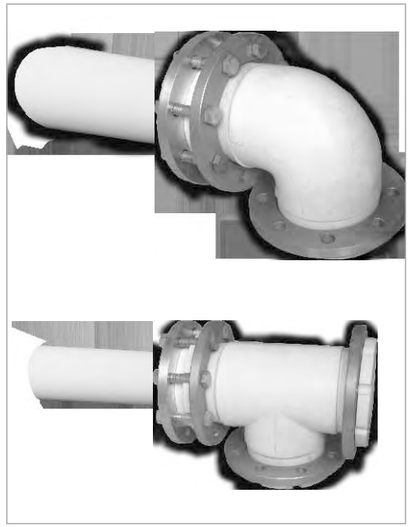
◎ Large diameter double fusion welding (dn50-dn110)

Select appropriate pipes, fittings and transition joints;

Select appropriate pipes, fittings and transition joints;Select the KINGBULL PSP double fusion welding device (2000W, 210 ℃) to process double fusion socket welding of two transition joints separately Connect the pipes strictly according to parameters in Table 1 ;

Select the KINGBULL PP-R/PE thermo fusion welding device (1200W, 260 ° C) to connect those two transition joints strictly according to parameters in Table 2 ;

◎ Joint with flanges (dn63-dn110)



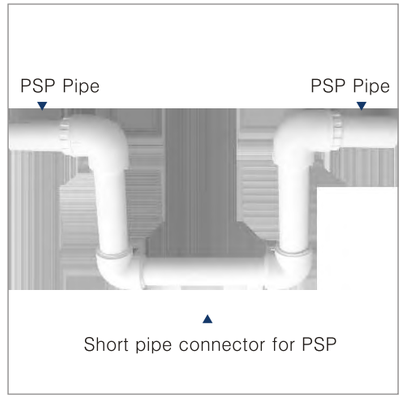
Select Joint with flanges (elbow or tee) for the connection of narrow space.

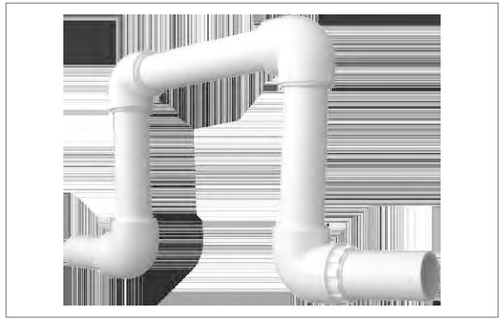
◎ Metal flange joint (dn160)

Connect metal flange joints to PSP pipes and plastic flange adapters with bolts.

Connection Methods of PSP Pipe

◎ Curved Bridge Connection





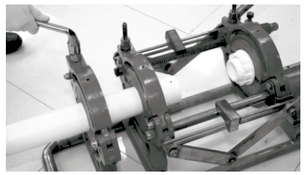
Connect short pipe connectors and curved bridge fitting to PSP pipe to solve the crossing problem.

Double Fusion Welding Process

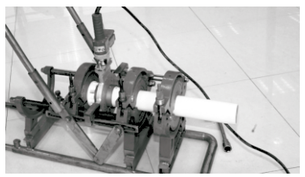
◎ Double fusion welding steps of PSP pipe and transition joints suitable diameter (dn50-dn110)

1.Mark the socket depth on pipes in accordance with Table 1;

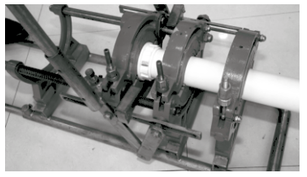
2.Fix the prepared pipes and transition joints in the thermo fusion welding machine, and clean the welding surface;



3.Operate the thermo fusion welding machine, push pipes and transition joints evenly into the thermo fusion spigot and socket heater according to depth and heating time stipulated in Table 1;



4.When observe a small amount of molten material overflow from the heating heads, remove the spigot and socket heater and push the pipe and joint rapidly together, insert to required depth and hold pressure until it cool down for required time (see table 1).



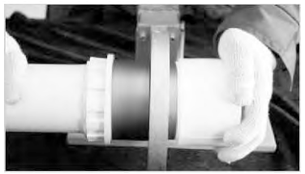
Thermo Fusion Welding Process

◎ Manual thermo fusion socket welding steps of transition joints and fittings suitable diameter (dn50-dn110)

1.Select KINGBULL specific PP-R thermo fusion welding device (1200W, 260℃), and clean the surfaces of thermo fusion spigot and socket heater, transition joints and pipe, and then heat the welding plate to 260℃ (the green indicator light turn to bright).

2.Insert simultaneously the fittings and pipes with welded transition joints into spigot and socket heater, and keep pushing until required depth.

3.After reaching required heating time (Table 2) and observing overflowed molten materials immediately remove the transition joints and fittings from the spigot and socket heater.



4.In the required conversion time (not exceed the maximum conversion time in table 2), quickly insert transition joints in an axial direction into fittings without rotation to the appropriate depth, and then hold pressure until the connection becomes cooled, avoid twisting and rotating during the process.

Connection Parameters

Table 1 The welding process parameters of PSP pipes and double fusion fittings

Nominal outer diameter (dn / mm)

Nominal outer diameter (dn / mm)	50	63	75	90	110	160
Outer layer welding depth (mm)	12	14	15	17	20	28
Welding Temperature ° C / (± 10) (Power 2000W)	210 (2000W)					
Heating time (s)	35	45	50	60	70	90
Maximum conversion time (s)	5	6	6	8	8	8
Minimum cooling time (s)	180	180	180	180	180	180

Note: 1, This table is corresponding to the ambient temperature 23 ℃, when the ambient temperature of the installation site is lower, extend the heating time accordingly (15% -20%), and shorten conversion time.
2.Determine the heating time by observing the formation of the molten overflow. If the overflow is even and replete, it would be ready for welding.
3.In this table the welding temperature refers the surface temperature of the spigot and socket of the welding device.

Table 2 Welding process parameters of PSP transition joints and thermo fusion sockets fittings

Nominal outside diameter (dn / mm)	20	25	32	40	50	63	75	90	110
Welding Temperature ° C / (± 10) (Power 1200W)	260 (600W)			260 (1200W)					
Heating time (s)	18	35	50	20	25	30	40	50	60
Maximum conversion time (s)	4	4	4	6	6	8	8	10	10
Minimum cooling time (s)	180	180	180	240	240	360	360	360	480

Note: This table is corresponding to the ambient temperature 23 ℃, when the ambient temperature of the installation site is lower, extend the heating time accordingly (15% -20%), and shorten conversion time. Determine the heating ime by observing the formation of the molten overflow. If the overflow is even and replete, it would be ready for welding.