

Urban Construction Industry Standard of the People's Republic of China

CJ / T124 – 2004

Replacing CJ / T124 – 2000

Fittings of steel reinforced polyethylene plastic pipes for water supply

Approved on December 2, 2004

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Approved by Ministry of Construction of the People's Republic of China

Foreword

This standard is the revised edition of the **CJ / T124 – 2000**, and the main references are some international standard and national standard such as ISO 4427 《Polyethylene(PE) pipes for water supply-Specifications》 and GB/T13663 《Polyethylene pipes for water supply》 etc.

This standard replaces **CJ / T124 – 2000** 《Fittings of steel reinforced polyethylene plastic pipes for water supply》 from the implemented day, the main content have been changed are as follows:

- in the “Scope” part, make the “the composite pipes used for transport the materials under 70℃” be replaced by “the composite pipes used for transport the materials under 70℃ for long term using , and under 80℃ for short term using”;
- in the “Material” part, add some regulations such as “ stripe, dispersing of the carbon black and the dispersing of the pigment” and cancel some regulations such as “volatile content, anti-gas component” etc. in the old standard;
- add “5.2 basic parameters of double faucets fittings”
- in “5.4Table1”,make the “correction coefficient is 0.76 when $60 < t \leq 70^{\circ}\text{C}$ ” replaced by “correction coefficient is 0.70 when $60 < t \leq 70^{\circ}\text{C}$ ”,and add “correction coefficient is 0.60 when $70 < t \leq 80^{\circ}\text{C}$ ”;
- add “6.3.3”basic parameters of double faucets fittings see Appendix C”
- in “6.5”,make“temperature:20℃ ,time:1h;pressure:nominal pressure $\times 2$ ”in “Short term hydrostatic strength test” be replaced by“temperature:20℃ ,time:100h;pressure:nominal pressure $\times 1.5$ ” and make “temperature:80℃ ,time:165h;pressure:nominal pressure $\times 2 \times 0.71$ ” be replaced by “temperature:80℃ ,time:165h;pressure:nominal pressure $\times 1.5 \times 0.6$ ” (see 6.5);
- in “8.3.2”,make “Each group should not exceed 100t.”be replaced by “Each group should not exceed 200t.”,make “If the outcome of 15 days is less than 100t, it is set as one group.” be replaced by “If the outcome of 20 days is less than 200t, it is set as one group.”;
- delete “ The storage period is no more than two years.” in “9.4”;
- add appendix C.

The appendix A appendix B are the normative appendixes, appendix C is the referenced appendix.

This standard is issued by the Research institute of Standards & Norms of the Ministry of Construction;

This standard is put under centralized management of the Technology Standardization Council of Water Supply and Drainage Product, Ministry of Construction.

This standard is drafted by Xinghe Industrial Co., Ltd. of Harbin Institute of Technology and Huachuang Tianyuan Industrial Developing Co., Ltd and Daqing Oil-field Changyuan Pipe Industry Co.,Ltd and Shenzhen Pipelines Science&

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FIELD

Fittings of steel framed polyethylene plastic pipes for water supply

1.Scope.

This standard defines the requirements of the raw materials, the classification of the products, the requirements, the methods of the tests, the rules for inspection, signs, packaging, transportation and storage of the steel framed polyethylene plastic fittings (composite fittings for short), which is framed by injecting the strengthened frame which is made by rolling and welding the equally hole-blasted steel sheet, and the polyethylene (of mid density or high density) thermo-plastic plastic.

This standard is suitable for the composite fittings indoors or outdoors, built on stilts or underground, used for water supply under pressure or drinking water supply, or the composite fittings used for transport the materials under 70°C, the composite fittings and composite fittings are used coherently.

2. Normative references

The terms cited in the following standards are naturally terms of this standard since they are quoted. All the standards cited below are effective when this standard is issued. Any standard may be revised in the future, so it is necessary to check the possible latest versions when using the relative standards.

GB / T 912 Carbon structural steel and low-alloy structural steel hot rolled sheet and steel strip.

GB / T 2828 counting sampling inspection by batches procedures and sampling tables (suitable for continuous batches)

GB / T 2918 regulation of the conditions of plastic samples and the standard environment for experiment

GB / T 3682 the method of test for the flowing speed of the thermo plasticity melting plastics

GB / T 6111 the method of examination for the time of thermo plasticity plastic pipes endure under certain inner pressure before spoiled

GB / T 8806 the method of measure for the size of the plastic tubular product

GB / T 11253 Carbon structural steel and low-alloy structural steel hot rolled sheet and steel strip.

GB / T 13021 the measure of the carbon black in polyethylene tubular product and tubing the method of thermo zero gravity

GB / T 17219 the evaluation standard of the safety of the facilities and protective materials used for drinking water supply

GB / T 17391 the test method of Thermo-stability for Polyethylene pipes and fittings.

GB/T 18251 measure method for distribution of pigment and carbon black in Polyolefin pipes and fittings.

GB/T 18252 plastic pipeline system measurement of the long-term hydrostatic

Strength for thermoplastics pipes by extrapolation.

GB/T 18475 classification and naming of the material for thermoplastics pipes and fittings general usage(design) coefficient.

GB/T 18476 polyolefin pipes for the transport of fluids measurement of the resistance crack propagation test measure of the RCP of the pipes with notch (notch test)

3. Technical terms

Nominal pressure

The greatest possible pressure against composite fittings used for water supply at 20°C (the expected service life is 50 years)

4. Raw materials

4.1 The mixed polyethylene

4.1.1 General rules

4.1.1.1 The mixed polyethylene should be used to produce fittings of the composite pipes. Only the indispensable additives, such as antioxidant, ultraviolet stabilizer and pigment should be added into the mixed polyethylene material to make the composite pipe accord with this standard and its' final usage, the additives should be dispersed evenly.

4.1.1.2 For the black pipe, the content of the carbon black in the mixed material should be $2.25\% \pm 0.25\%$ (quality percentage).

4.1.1.3 We suggest to use the PE63 or advanced mixed material which accords with the GB/T18252 and GB/T18475.

4.1.2 disperse of the pigment in the mixed material

4.1.2.1 disperse of the carbon black

according with the prescription in GB/T18251, the dispersion of the carbon black should \leq classification 3.

4.1.2.2 disperse of the pigment

According with the prescription in GB/T18251, the dispersion of the pigment should \leq classification 3.

4.1.3 thermo-stability

Under the test temperature 200°C, the O.I.T time of the material advanced PE63 should be 20min at least.

4.1.4 Resistance Crack Propagation

According with the prescription in GB/T18476, the pipe shouldn't be destroyed in 165h, and the material manufacturer should provide the test data.

4.1.5 the affection on the water quality of the mixed material will be used to produce drinking water.

The content of the substance, chemical matter or biologic matter which could be separated out when the mixed polyethylene material contact with drinking water should accord with the prescription in GB/T 17219 or relevant sanitation specification.

4.1.6 Melting Flow Rate and Density

The composite pipe manufacturer should provide the data about density and MFR of the mixed material. The MFR should accord with the following requirements:

a) the deviation between the actual value and the prescriptive value of the

manufacturer shouldn't exceed $\pm 25\%$

- b)** The MFR value's change brought during the processing, that is the test value deviation between the mixed material and the sample from the composite pipe, shouldn't exceed 20%.

4.2 Steel strip

4.2.1 The steel reinforced part should adopt the common low carbon steel sheet or alloy steel sheet that be well welt, the size and the mechanics performance must meet the requirement set in GB/T 11253 or GB/T 912.

4.2.2 Surface coating

The surface of the steel reinforced part should be coated with metal that is rust-resistant. The coating should be pure, smooth, stable and with no uncoated area, oil or dust.

5 The classification of the products

5.1 The basic parameter of the electro-fusion connection sleeve.

The basic parameter of the electro-fusion connection sleeve (electro-fusion sleeve for short) is in the appendix A (standard appendix).

The electro-fusion connection sleeve should be strengthened by steel skeleton, and the thickness of the sleeve is not less than the composite pipe's, and the mechanics performance of the steel skeleton is not less than the net steel frame of the pipe. The pure plastic sleeve can be also used when the material transported is usual temperature and low pressure.

5.2 The basic parameters of double faucets fittings.

The special connection fittings should be used, the basic parameters of it see the appendix C.

5.3 Other type of composite pipes fittings.

Including: 45° elbow, 90° elbow, 22.5° elbow, 11.25° elbow, tee, reducing tee, reducing tube, flange fittings etc. The connection types are flange, electro-fusion, double faucets fittings and butt-welding etc. According to the difference connection type, the ending of the fittings should be injected or turned. (the basic parameters of the fittings see Appendix B)

5.4 The correction coefficient of nominal pressure

When the composite fittings are used to transport water above 20°C, the nominal pressure should be revised. The revision coefficient listed in table 1.

Table 1 the correction coefficient of nominal pressure

Temperature t, °C	0 < t ≤ 20	20 < t ≤ 30	30 < t ≤ 40	40 < t ≤ 50	50 < t ≤ 60	60 < t ≤ 70	70 < t ≤ 80
the correction coefficient of nominal pressure	1	0.95	0.90	0.86	0.81	0.7	0.6

6 Requirements

6.1 Color

The color of composite fittings must be black or blue. And the color of the fittings

exposed to sunshine, like above-ground fittings, must be black.

6.2 Appearance

6.2.1 The inner surfaces of composite fittings must be clean and smooth, the out surface of composite fittings should be naturally shrinking, and neither the inner surfaces nor the out surfaces allow bleb, chink, color-dividing-line and obvious scoring. The port of the fittings should be even and smooth; the inner surfaces of the airproof slot should be smooth and has no burr, the edges and corners should be clear and in good condition.

6.2.2 The surfaces of second-time injection mould parts of the flange connections and taper openings of electro-fusion composite fittings must be flat, smooth, do not have faults like drop pit, scoring, burr, meet the composite fittings well and allow certain shrink of the pure plastic part at the forward end of taper opening.

6.2.3 The brass wires or the plastic-wrapping wires in the electro-fusion connection cannula should not become flexible, the junction columniation is stable. The frame shouldn't be revealed in both the inner and out surfaces.

6.3 Basic parameter

6.3.1 The basic parameters of the flange connection fittings and the electro-fusion connection composite fittings are in the appendix B (standard appendix)

6.3.2 The basic parameter of the electro-fusion connection cannula is in Appendix A (standard appendix).

6.3.3 The specification, size and size warp of the flat openings and taper openings of electro-fusion composite fittings are to be seen in Appendix A (standard appendix).

6.4 Out of roundness

The out of roundness of composite fittings is not to be over 5%.

6.5 The performance requirement of composite fittings.

The performance requirement of composite fittings must be in accordance with the prescription in Table 3.

Table 3 the performance requirement of composite fittings

No.	Item		Performance requirement	Test means
1	Short term standstill hydraulic pressure intention test	Temp: 20, Time: 100h, Pressure: nominal pressure \times 2	No cracking and leakage	See 7.10.1
		Temp: 80 Time: 165h Nominal pressure \times 2 \times 0.71		
2	Explosion intention test		Explosion pressure \geq nominal pressure \times 3	See 7.10.1
3	Seal test	Temp: 20, Time: >1h, Pressure: nominal pressure \times 1.5	No cracking and leakage	See 7.10.2
		Temp: 80, Time: >1h, Pressure: nominal pressure \times 1.5 \times 0.6		
4	Avulsion test	Temp: 20	Brickle avulsion length \leq 33.3%	See 7.12

6.7 Sanitation performance

The sanitation performance of drinking water used composite fittings must meet

the prescription of GB 9687 or that of GB/T 17219.

7 Test methods

7.1 The standard environment of the adjustment and test of sample's state

The standard environment of the adjustment and test of sample's state should meet the prescription in GB/T 2918. Temperature is $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The adjustment time should be no less than 24h.

7.2 Appearance test

Eye check and observe the inner surface under backlighting.

7.3 The measurement of geometrical size

7.3.1 The length of composite fittings: use measure implements whose precision is no less than 1mm.

7.3.2 The inner core: use measure implements prescribed in GB/T 8806

7.3.3 Other sizes: use measure implements whose precision is no less than 0.01mm.

7.4 Measure the out of roundness

Proceed according to 5.4 in GB 15558.1—1995.

7.5 Intensity measurement

Proceed according to GB/T 1033.

7.6 Melt flow rate measurement

Proceed according to GB/T 3682.

7.7 Volatilization measurement

Proceed according to 5.7 in GB 15558.2--1995 or ask the raw material provider to offer.

7.8 The content of black carbon measurement

Proceed according to GB/T 13021 or ask the raw material provider to offer.

7.9 Thermal stability test

Proceed according to 5.9 in GB 15558.2--1995 or ask the raw material provider to offer.

7.10 The performance check of composite fittings

7.10.1 Short term standstill hydraulic pressure intention test and Explosion intention test

Proceed according to GB/T 6111. The test should be taken on combination fittings. The performance of the composite fittings should be denoted by the combination fittings, take 45 elbow for example in figure 1.

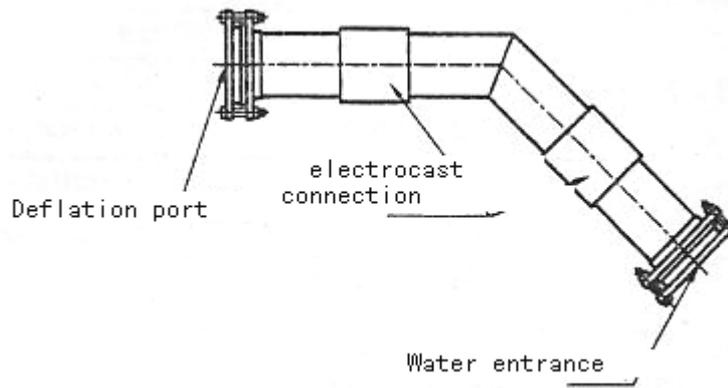


Figure 1

7.10.2 Airproof performance test. Proceed according to GB/T 6111. The test should be taken on combination fittings. The performance of the composite fittings should be denoted by the combination fittings, take 90 elbow for example in figure 2.

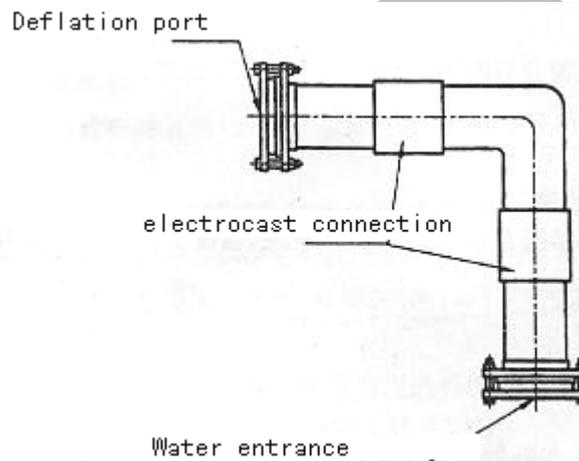


Figure 2

7.11 Sanitation performance test

Proceed according to GB/T 9687 or GB/T 17219.

7.12 Avulsion test. On the electro-fusion welding combination fittings, four pieces of sample fittings are chosen equably along the electro-fusion cannula circle, the width of the samples is 15mm-25mm, and make the clamp laniate the electro-fusion part and tubular product part at a speed of 25mm/min, and make the welding surface visible.

8 Test rules

8.1 Only after being checked out and being given certificate of approval can the composite fittings leave factory.

8.2 Test types

Routine test and model test are the two types.

8.3 Routine test

8.3.1 The test items of composite fitting routine test are the test of size shrink in portrait direction and short term standstill hydraulic pressure intention test in 6.1, 6.2, 6.3, 6.4 and 6.5.

8.3.2 Group sampling and judgment

Set the composite fittings manufactured with the same material, ingredient and

techniques as one group. Each group should not exceed 1200 samples. If the outcome of 15 days is less than 1200, it is set as one group. Proceed according to GB/T 2828. Adopt the normal test sampling formula. Set IL=I as the normal test level and AQL=6.5 as the satisfactory quality level. See sampling formula in Table 4.

Table 4

Group range	Sample size n	Satisfaction value Ac	Dissatisfaction value Re
≤150	8	1	2
151~280	13	2	3
281~500	20	3	4
501~1200	32	5	6

8.3.3 Randomly take out enough samples from a group of products that passed counting sampling test and carry out the test of short-term standstill hydraulic pressure intention test in 6.5. When they are not eligible, take out the 2nd set and carry out the tests. If they are not eligible again, then this group of products is judged to be not eligible.

8.4 Model test

8.4.1 The items of model test are the items required by this standard.

8.4.2 Implement the model test under any of the following situation.

- a) When there is a big change in material and technique that may influence the performance of products;
- b) Conduct no less than once under normal production.
- c) At the time of restoring production after stopping production for more than 6 months;
- d) When great differences exist between the routine test results and the last time model test results;
- e) When a model test is required by national quality supervision department.

8.4.3 Judgment rules

Judge 6.2, 6.3, 6.4 and 6.6 in accordance with Table 6. When only one item in 6.5 falls short of the standard, randomly take out twice the amount of samples again and test. If still some item fails to reach the standard, then this group of products can be judged not eligible.

9 Sign, packing, transportation and storing

9.1 Sign

The composite fittings itself should have the following marks, the marks shouldn't impair the properties of the fittings, and it must be far away from the visualizing hole.

- a) the type, standard and size of the composite fittings
- b) connection means (F refers to flange connection and D refers to electro-fusion connection)
- c) manufacturer or trade mark
- d) date of production or batch number

9.2 Packing

The composite fittings should be airproofed in plastic packages, batch or single,

and use the packing case to prevent from being damaged; the packing case should be attached with quality certification, batch number, quantity, etc provided by quality inspection department.

9.3 Transportation

During transportation and handling, prevent the fittings from fierce collision, scoring, throwing, insulating, drenching and polluting.

9.4 Storing

Composite fittings should be stored at places away from heat source and the temperature should not exceed 40°C. The store ground should be flat and the storeroom should be of good aeration.

The storage period is no more than two years.

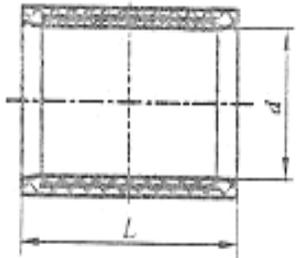
Appendix A

(Standard appendix)

Basic parameter of the electro-fusion connection sleeve

A1 Basic parameter of the electro-fusion connection sleeve (fit for the flat opening)

Table A1 Basic parameter of the electro-fusion connection sleeve (fit for the flat opening)

Name	Figure	Nominal inner core of the matching fittings Dn, mm	Inner hole of the welding area d And the warp, mm	L mm	Nominal pressure
		50	71	150	2.5
		65	86	150	2.5
		80	103	150	2.5
		100	123	180	2.5
		125	148	200	2.5
		150	173	220	1.6
		200	224	240	1.6
		250	274	260	1.0
		300	324	300	1.0

A2 Basic parameter of the electro-fusion connection sleeve (fit for the taper opening)

Table A2 Basic parameter of the electro-fusion connection sleeve (fit for the taper opening)

Name	Figure	Nominal inner core of the matching fittings Dn, mm	Inner hole of the welding area d And the warp, mm	L mm	Nominal pressure	a
		50	75	200	2.5	30
		65	89	200	2.5	30
		80	104	200	2.5	30
		100	125	200	1.6	30
		125	152	200	1.6	30
		150	182	220	1.6	30
		200	234	240	1.6	30
		250	284	260	1.0	30
		300	334	300	1.0	30
		350	390	320	1.0	1
		400	440	340	1.0	1
		450	492	360	1.0	1
		500	542	380	1.0	1
		1)the nominal pressure of the electro-fusion sleeve refer to the water transportation max permitting pressure after the system is connected at the temperature of 20				

Appendix B

(Standard appendix)

The basic parameter of the steel frame plastic composite fittings

B1 the basic parameter of the 90°elbow

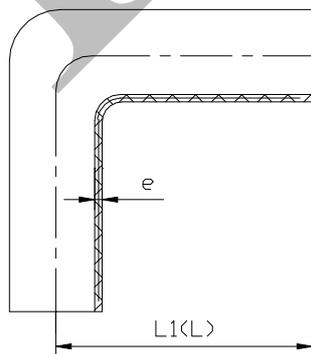


Figure B1 90°elbow

Table B1 basic parameters of 90°elbow

Nominal inner diameter Dn mm	Nominal pressure, MPa				L1 ²⁾ , mm	
	1.0	1.6	2.5	4.0		
	Nominal thickness e and deviation mm				I	II
50	—	—	9.0 ₀ ^{+0.5}	11.0±0.5	150	185
65	—	—	9.0 ₀ ^{+0.5}	11.0±0.5	160	195
80	—	—	9.5 ₀ ^{+0.5}	11.5±0.6	180	205
100	—	9.5 ₀ ^{+0.5}	11.5±0.6	—	190	220
125	—	11.0 ₀ ^{+0.7}	12.0±0.7	—	200	235
150	—	12.0±0.8	—	—	—	255
		12.5±0.8			225	—
200	—	12.5±0.8	—	—	—	295
		13.0±0.8			295	—
250	13.5±0.9	16.0±0.9	—	—	335	335
300	14.0±1.0	16.0±1.0	—	—	380	380

note: 1) According to the connection type, the ending of the fittings should be the same as the pipes connects with them. The ending of the fittings may adopt flange, flat ending or cone-shaped ending, and the structure parameters see the Appendix A B C of the CJ/T123.

2) The series I in the table L1 correspond to the structure A1 in Appendix A of the CJ/T 123 or B1 in Appendix B or Appendix C; The series II correspond to the structure A2 in Appendix A of the CJ/T 123 or B2 in Appendix B. According to the different ending type, the length of the fittings L and L1 are different too. When flange or cone-shaped used, L=L1+10; when flat ending used, L=L1.

45°elbow

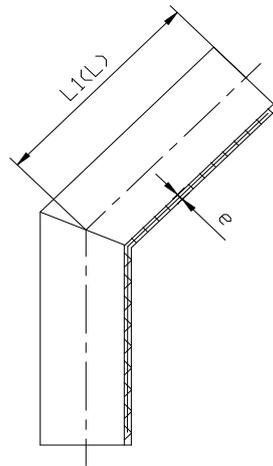


Figure B2 45°elbow

Table B2 basic parameters of 45°elbow

Nominal inner diameter D_n mm	Nominal pressure, MPa				$L_1^{2)}$, mm	
	1.0	1.6	2.5	4.0		
	Nominal thickness e and deviation, mm				I	II
50	—	—	$9.0_0^{+0.5}$	11.0 ± 0.5	120	150
65	—	—	$9.0_0^{+0.5}$	11.0 ± 0.5	125	155
80	—	—	$9.5_0^{+0.5}$	11.5 ± 0.6	145	160
100	—	$9.5_0^{+0.5}$	11.5 ± 0.6	—	150	165
125	—	$11.0_0^{+0.7}$	12.0 ± 0.7	—	160	170
150	—	12.0 ± 0.8	—	—	—	185
		12.5 ± 0.8			170	—
200	—	12.5 ± 0.8	—	—	—	210
		13.0 ± 0.9			185	—
250	13.5 ± 0.9	16.0 ± 0.9	—	—	215	230
300	14.0 ± 1.0	16.0 ± 1.0	—	—	240	260
350	15.0 ± 1.0	18.0 ± 1.0	—	—	—	325
400	15.0 ± 1.0	18.0 ± 1.0	—	—	—	345
450	16.0 ± 1.0	18.0 ± 1.0	—	—	—	365
500	16.0 ± 1.0	20.0 ± 1.0	—	—	—	385

note: 1) According to the connection type, the ending of the fittings should be the same as the pipes connects with them. The ending of the fittings may adopt flange, flat ending or cone-shaped ending, and the structure parameters see the Appendix A B C of the CJ/T123.

2) The series I in the table L1 correspond to the structure A1 in Appendix A of the CJ/T 123 or B1 in Appendix B or Appendix C; The series II correspond to the structure A2 in Appendix A of the CJ/T 123 or B2 in Appendix B. According to the different ending type, the length of the fittings L and L_1 are different too. When flange or cone-shaped used, $L=L_1+10$; when flat ending used, $L=L_1$.

T fittings

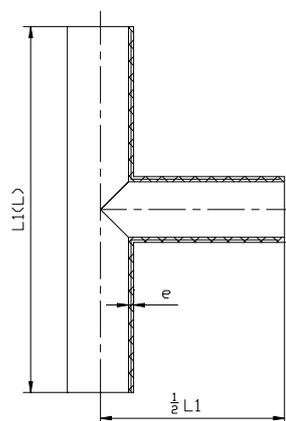


Figure B3 T fittings

Figure B3 basic parameters of T fittings

Nominal inner diameter Dn mm	Nominal pressure, MPa				L1 ² , mm	
	1.0	1.6	2.5	4.0	I	II
	Nominal thickness e and deviation, mm					
50	—	—	9.0 ₀ ^{+0.5}	11.0±0.5	300	370
65	—	—	9.0 ₀ ^{+0.5}	11.0±0.5	320	390
80	—	—	9.5 ₀ ^{+0.5}	11.5±0.6	360	410
100	—	9.5 ₀ ^{+0.5}	11.5±0.6	—	380	440
125	—	11.0 ₀ ^{+0.7}	12.0±0.7	—	400	470
150	—	12.0±0.8	—	—	—	510
		12.5±0.8			450	—
200	—	12.5±0.8	—	—	—	590
		13.0±0.9			510	—
250	13.5±0.9	16.0±0.9	—	—	600	670
300	14.0±1.0	16.0±1.0	—	—	670	760
350	15.0±1.0	18.0±1.0	—	—	—	870
400	15.0±1.0	18.0±1.0	—	—	—	940
450	16.0±1.0	18.0±1.0	—	—	—	1010
500	16.0±1.0	20.0±1.0	—	—	—	1080
						960

note: 1) According to the connection type, the ending of the fittings should be the same as the pipes connects with them. The ending of the fittings may adopt flange, flat ending or cone-shaped ending, and the structure parameters see the Appendix A B C of the CJ/T123.

2) The series I in the table L1 correspond to the structure A1 in Appendix A of the CJ/T 123 or B1 in Appendix B or Appendix C; The series II correspond to the structure A2 in Appendix A of the CJ/T 123 or B2 in Appendix B. According to the different ending type, the length of the fittings L and L1 are different too. When flange or cone-shaped used, L=L1+10; when flat ending used, L=L1.

Reducing Tube

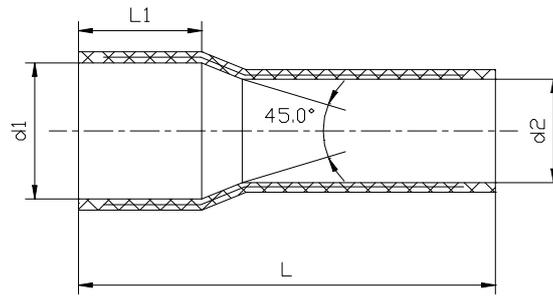


Figure B4 basic parameters of Reducing Tube

Table B4 basic parameters of Reducing Tube

Units:mm

Specifications Dn	d_1	d_2	L	L1
500-450	500	450	800	≥ 200
500-400	500	400	800	
450-400	450	400	760	
450-350	450	350	760	
400-350	400	350	720	≥ 180
400-300	400	300	720	
350-300	350	300	640	
350-250	350	250	640	
300-250	300	250	590	≥ 150
300-200	300	200	500	
			590	
250-200	250	200	500	
			540	
250-150	250	150	500	
			540	
200-150	200	150	450	
			480	
200-125	200	125	450	
150-125	150	125	450	≥ 120
150-100	150	100	450	
125-100	125	100	400	
125-80	125	80	400	
100-80	100	80	380	≥ 100
100-65	100	65	380	
100-50	100	50	380	

Note: According to the connection type, the ending of the fittings should be the same as the pipes connects with them. The ending of the fittings may adopt flange, flat ending or cone-shaped ending, and the structure parameters see CJ/T123.

Flange fittings

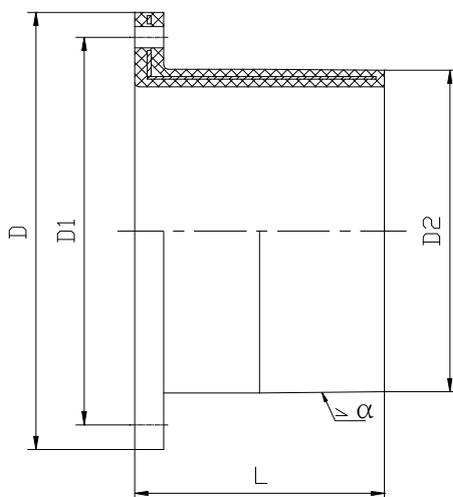


Figure B5 Flange fittings

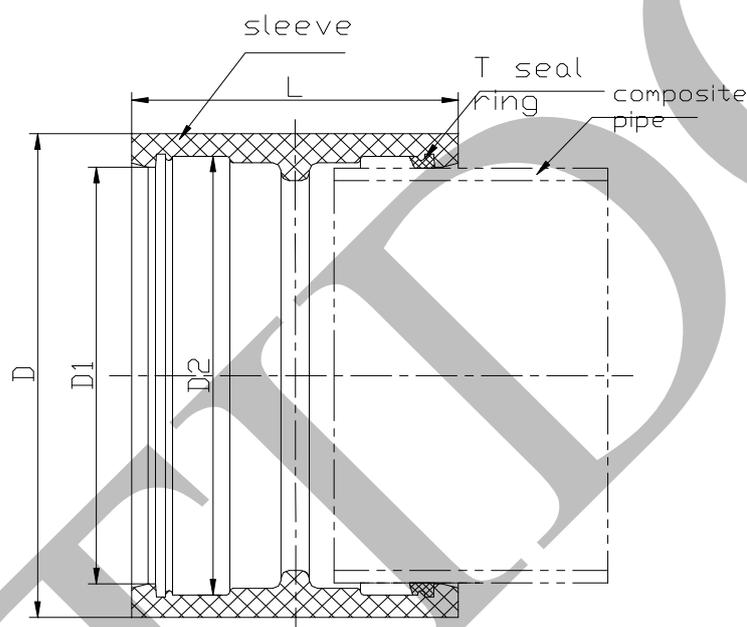
Table B5 basic parameters of flange fittings

Nominal diameter Dn, mm	Nominal pressure Mpa	L, mm	D, mm	Small ending D2, mm	α
150	1.6	220	300	$182_{-1.6}^0$	30′
200	1.6	240	360	$234_{-1.6}^0$	30′
250	1.6	270	425	$284_{-1.6}^0$	30′
300	1.6	300	485	$334_{-1.6}^0$	30′
350	1.6	310	520	$390_{-1.6}^0$	1°
400	1.6	320	580	$440_{-1.6}^0$	1°
450	1.6	330	640	$492_{-1.6}^0$	1°
500	1.6	350	715	$542_{-1.6}^0$	1°

(informational appendix)

Basic parameters of double faucets fittings**Structure of double faucets fittings**

See C1. The seal material can choose the T type slide sealing ring apply to cast-iron pipes or rings designed specially, the pipes' ending type should comply with the double faucets fittings set in the CJ/T 123.

**Figure C1 double faucets fittings****Material of the double faucets fittings**

According to the pressure, environment and the expected life ect, the material may adrop PE, FRP, steel ect.

Define the parameters or the double faucets fittings

Due to the using pressure and the material of the product , the structural demensions can be different, and the size may need to be designed.

There are some size reference in Table C1

Table C1 parameters of double faucets fittings

Units: mm

Nominal diameter Dn	50	65	80	100	125	150	200	250	300	350	400	450	500	600
D	Decide according to the material and the applying pressure													

$D1 \geq$	78	93	108	128	155	184	235	285	335	390	440	492	542	650
D2	Decide according to the applying pressure and the type of the seal ring													
$L \geq$	190	190	190	190	190	210	230	250	290	310	330	350	370	420

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