

4. in the process of the hydraulic test, you should first conduct strength tests, the test pressure is 1.5 times the working pressure, but not less than 0.6MPa.

Testing methods: observe for 10min in the experiment pressure, the pressure drop should not be higher than 0.02MPa, and then down to the work pressure to check . It should be with no seepage and leaks.

5. As for the potentiometer larger pipeline, the hydrostatic test medium should be included in pilot stress. Liquid pipeline test pressure shall be subject to the highest point of the pressure, but pressure from the lowest point shall not exceed the affordability of the composition of pieces of pipe.

⊙ At the end of the experiment, blind panels and expansion joint limit facilities should be promptly removed and effusion should be drained off. At the draining, it should be prevent from the formation of negative pressure, and the effusion shall not be discharged anywhere

⊙ When the leak was found during the test , you will not deal with pressure. After elimination of defects, it should be re-tested.Completion inspection and acceptance

⊙ The following documents should be prepared for the Completion inspection and acceptance

1. Production drawing, as-built drawing and design changes files.
2. factory certification, quality documentation and on-site inspection records on Pipe, pipe fittings and accessories of the main channel.
3. acceptance records on Concealed project and middle of project;
4. records on Water pressure test and inspection of pass water capacity.
5. Cleaning and disinfection of drinking water pipeline records and qualified records of the pipeline water disinfection issued by health and epidemic prevention departments.
6. Engineering Quality Inspection and Evaluation Record
7. Project quality accident treatment records

**Other Rules:**

⊙ Completion of quality should meet the design requirements and the procedures and current standards and specifications requirements.

⊙ Acceptance should also contain the following elements

1. pipe stand and hanger installation position and solidity;
2. thermal insulation material thickness and its practice;
3. flexibility of various open and close points of valves and water taps, , and the fixed nature.
4. Meanwhile, whether the opened water distribution point with rated flow meet the number of design requirements;
5. The accuracy of coordinates, elevation and slope.
6. clean, solid and tightness of connection points or interfaces



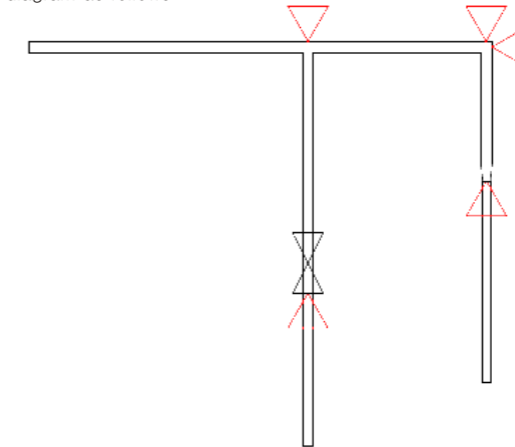
**Appendix A Steel-plastic Pipe Hydraulic Calculation Table**

| Q      |       | dn (mm) |        |        |        |        |       |        |       |        |       |
|--------|-------|---------|--------|--------|--------|--------|-------|--------|-------|--------|-------|
|        |       | 50      |        | 63     |        | 75     |       | 90     |       | 110    |       |
| (m³/h) | (L/S) | V(m/s)  | 1000i  | V(m/s) | 1000i  | V(m/s) | 1000i | V(m/s) | 1000i | V(m/s) | 1000i |
| 0.72   | 0.20  | 0.16    | 9.96   |        |        |        |       |        |       |        |       |
| 0.90   | 0.25  | 0.20    | 15.05  |        |        |        |       |        |       |        |       |
| 1.08   | 0.30  | 0.24    | 21.09  |        |        |        |       |        |       |        |       |
| 1.26   | 0.35  | 0.27    | 28.05  |        |        |        |       |        |       |        |       |
| 1.44   | 0.40  | 0.31    | 35.91  | 0.20   | 12.08  |        |       |        |       |        |       |
| 1.62   | 0.45  | 0.35    | 44.65  | 0.23   | 15.03  |        |       |        |       |        |       |
| 1.80   | 0.50  | 0.39    | 54.26  | 0.25   | 18.26  |        |       |        |       |        |       |
| 1.98   | 0.55  | 0.43    | 64.72  | 0.28   | 21.78  |        |       |        |       |        |       |
| 2.16   | 0.60  | 0.47    | 76.03  | 0.30   | 25.58  | 0.19   | 6.61  |        |       |        |       |
| 2.34   | 0.65  | 0.51    | 88.16  | 0.33   | 29.67  | 0.21   | 7.66  |        |       |        |       |
| 2.52   | 0.70  | 0.55    | 101.11 | 0.35   | 34.03  | 0.22   | 8.79  |        |       |        |       |
| 2.70   | 0.75  | 0.59    | 114.88 | 0.38   | 38.66  | 0.24   | 9.98  |        |       |        |       |
| 2.88   | 0.80  | 0.63    | 129.45 | 0.40   | 43.56  | 0.25   | 11.25 |        |       |        |       |
| 3.06   | 0.85  | 0.67    | 144.81 | 0.43   | 48.73  | 0.27   | 12.58 |        |       |        |       |
| 3.24   | 0.90  | 0.71    | 160.96 | 0.45   | 54.17  | 0.28   | 13.99 |        |       |        |       |
| 3.42   | 0.95  | 0.75    | 177.90 | 0.48   | 59.86  | 0.30   | 15.46 | 0.20   | 7.36  |        |       |
| 3.60   | 1.00  | 0.78    | 195.61 | 0.50   | 65.82  | 0.32   | 17.00 | 0.21   | 8.10  |        |       |
| 3.78   | 1.05  | 0.82    | 214.08 | 0.53   | 72.04  | 0.33   | 18.60 | 0.22   | 8.86  |        |       |
| 3.96   | 1.10  | 0.86    | 233.32 | 0.55   | 78.52  | 0.35   | 20.27 | 0.23   | 9.66  |        |       |
| 4.14   | 1.15  | 0.90    | 253.32 | 0.58   | 85.25  | 0.36   | 22.01 | 0.24   | 10.49 |        |       |
| 4.32   | 1.20  | 0.94    | 274.07 | 0.60   | 92.23  | 0.38   | 23.81 | 0.25   | 11.34 |        |       |
| 4.50   | 1.25  | 0.98    | 295.57 | 0.63   | 99.46  | 0.39   | 25.68 | 0.27   | 12.23 |        |       |
| 4.68   | 1.30  | 1.02    | 317.82 | 0.65   | 106.95 | 0.41   | 27.61 | 0.28   | 13.16 |        |       |
| 4.86   | 1.35  | 1.06    | 340.80 | 0.68   | 114.68 | 0.43   | 29.61 | 0.29   | 14.11 |        |       |
| 5.04   | 1.40  | 1.10    | 364.52 | 0.70   | 122.66 | 0.44   | 31.67 | 0.30   | 15.09 | 0.19   | 5.16  |
| 5.22   | 1.45  | 1.14    | 388.97 | 0.73   | 130.89 | 0.46   | 33.80 | 0.31   | 16.10 | 0.20   | 5.51  |
| 5.40   | 1.50  | 1.18    | 414.14 | 0.75   | 139.36 | 0.47   | 35.98 | 0.32   | 17.14 | 0.20   | 5.86  |
| 5.58   | 1.55  | 1.22    | 440.04 | 0.78   | 148.08 | 0.49   | 38.23 | 0.33   | 18.22 | 0.21   | 6.23  |
| 5.76   | 1.60  | 1.25    | 466.66 | 0.80   | 157.04 | 0.51   | 40.55 | 0.34   | 19.32 | 0.22   | 6.61  |
| 5.94   | 1.65  | 1.29    | 494.00 | 0.83   | 166.24 | 0.52   | 42.92 | 0.35   | 20.45 | 0.23   | 6.99  |
| 6.12   | 1.70  | 1.33    | 522.05 | 0.85   | 175.68 | 0.54   | 45.36 | 0.36   | 21.61 | 0.23   | 7.39  |
| 6.30   | 1.75  | 1.37    | 550.81 | 0.88   | 185.35 | 0.55   | 47.86 | 0.37   | 22.80 | 0.24   | 7.80  |
| 6.48   | 1.80  | 1.41    | 580.28 | 0.90   | 195.27 | 0.57   | 50.42 | 0.38   | 24.02 | 0.25   | 8.22  |
| 6.66   | 1.85  | 1.45    | 610.45 | 0.93   | 205.42 | 0.58   | 53.04 | 0.39   | 25.27 | 0.25   | 8.64  |

| Q      |       | dn (mm) |        |        |        |        |       |        |        |        |        |
|--------|-------|---------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
|        |       | 50      |        | 63     |        | 75     |       | 90     |        | 110    |        |
| (m³/h) | (L/S) | V(m/s)  | 1000i  | V(m/s) | 1000i  | V(m/s) | 1000i | V(m/s) | 1000i  | V(m/s) | 1000i  |
| 6.84   | 1.90  | 1.49    | 641.32 | 0.95   | 215.81 | 0.60   | 0.60  | 0.40   | 26.55  | 0.26   | 9.08   |
| 7.02   | 1.95  | 1.53    | 672.89 | 0.98   | 226.44 | 0.62   | 0.62  | 0.41   | 27.85  | 0.27   | 9.53   |
| 7.20   | 2.00  | 1.57    | 705.16 | 1.00   | 237.29 | 0.63   | 0.63  | 0.42   | 29.19  | 0.27   | 9.98   |
| 7.56   | 2.10  | 1.65    | 771.77 | 1.05   | 259.71 | 0.66   | 0.66  | 0.45   | 31.95  | 0.29   | 10.93  |
| 7.92   | 2.20  | 1.73    | 841.13 | 1.10   | 283.05 | 0.70   | 0.70  | 0.47   | 34.82  | 0.30   | 11.91  |
| 8.28   | 2.30  | 1.80    | 913.23 | 1.15   | 307.31 | 0.73   | 0.73  | 0.49   | 37.80  | 0.31   | 12.93  |
| 9.00   | 2.50  | 1.25    | 358.57 | 0.79   | 92.58  | 0.53   | 0.53  | 0.34   | 15.09  | 0.16   | 2.39   |
| 10.08  | 2.80  | 1.40    | 442.21 | 0.88   | 114.18 | 0.59   | 0.59  | 0.38   | 18.60  | 0.18   | 2.95   |
| 11.52  | 3.20  | 1.60    | 566.12 | 1.01   | 146.17 | 0.68   | 0.68  | 0.44   | 23.82  | 0.21   | 3.78   |
| 13.68  | 3.80  | 1.91    | 778.00 | 1.20   | 200.88 | 0.81   | 0.81  | 0.52   | 32.73  | 0.24   | 5.19   |
| 15.12  | 4.20  | 2.11    | 936.25 | 1.33   | 241.74 | 0.89   | 0.89  | 0.57   | 39.39  | 0.27   | 6.24   |
| 16.56  | 4.60  |         |        | 1.45   | 286.05 | 0.98   | 0.98  | 0.63   | 46.61  | 0.29   | 7.39   |
| 18.00  | 5.00  |         |        | 1.58   | 333.76 | 1.06   | 1.06  | 0.68   | 54.38  | 0.32   | 8.62   |
| 21.60  | 6.00  |         |        | 1.90   | 467.65 | 1.27   | 1.27  | 0.82   | 76.20  | 0.38   | 12.08  |
| 23.40  | 6.50  |         |        | 2.05   | 542.29 | 1.38   | 1.38  | 0.89   | 88.36  | 0.42   | 14.01  |
| 25.20  | 7.00  |         |        |        |        | 1.48   | 1.48  | 0.96   | 101.35 | 0.45   | 16.07  |
| 27.00  | 7.50  |         |        |        |        | 1.59   | 1.59  | 1.02   | 115.14 | 0.48   | 18.26  |
| 28.80  | 8.00  |         |        |        |        | 1.70   | 1.70  | 1.09   | 129.75 | 0.51   | 20.57  |
| 30.60  | 8.50  |         |        |        |        | 1.80   | 1.80  | 1.16   | 145.15 | 0.54   | 23.01  |
| 32.40  | 9.00  |         |        |        |        | 1.91   | 1.91  | 1.23   | 161.33 | 0.58   | 25.58  |
| 36.00  | 10.00 |         |        |        |        | 2.12   | 2.12  | 1.37   | 196.06 | 0.64   | 31.08  |
| 39.60  | 11.00 |         |        |        |        |        |       | 1.50   | 233.86 | 0.70   | 37.08  |
| 43.20  | 12.00 |         |        |        |        |        |       | 1.64   | 274.70 | 0.77   | 43.55  |
| 46.80  | 13.00 |         |        |        |        |        |       | 1.77   | 318.55 | 0.83   | 50.50  |
| 50.40  | 14.00 |         |        |        |        |        |       | 1.91   | 365.36 | 0.90   | 57.92  |
| 54.00  | 15.00 |         |        |        |        |        |       | 2.05   | 415.10 | 0.96   | 65.81  |
| 57.60  | 16.00 |         |        |        |        |        |       |        |        | 1.03   | 74.16  |
| 72.00  | 20.00 |         |        |        |        |        |       |        |        | 1.28   | 112.05 |
| 90.00  | 25.00 |         |        |        |        |        |       |        |        | 1.60   | 169.32 |

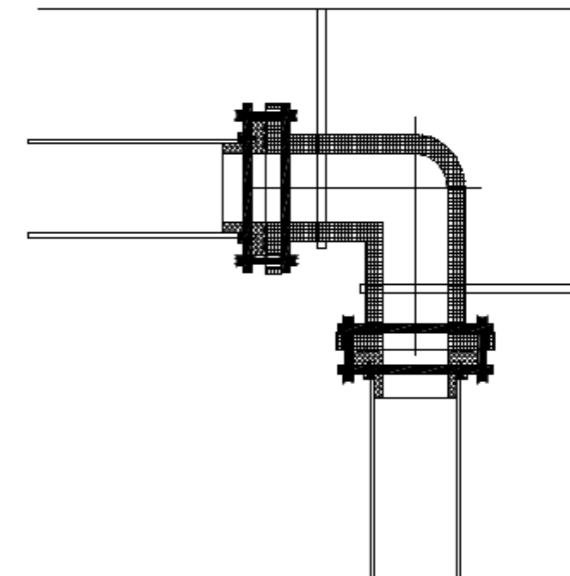
**Appendix B**

© Tubing pressure shall be calculated in the horizontal or vertical turnings, and part of changing the pipe diameter, three elbows and valves according to the axial thrust, setting thrust blocks or fixed supports in generating thrust, setting points diagram as follows:



© The thrust resistant stool should be set in the place of site concreting and through slope. The plastic or rubber buffer layer should be set between the pipe and thrust resistant stool, the thickness is about 3mm, the clamp anchoring should be fixed on the thrust resistant stool in the place of pipe bending. The design can be referred to Standard Drawings.

If the pipe is laid with aerial way, then some fixing frame should be set in related place to reduce the blind force. The design of frame can be referred to the Standard Drawing in accordance with site condition. The Bending can be designed according to following Drawing:



NOTE: More parameter please refer to "plastic pipes and fittings – the scale of resistance to chemical corrosion,"