

# SUBMITTAL FOR CHARLOTTE PIPE® PVC SCHEDULE 80 PRESSURE PIPE AND FITTING SYSTEM

Date: \_\_\_\_\_

Job Name: \_\_\_\_\_

Location: \_\_\_\_\_

Engineer: \_\_\_\_\_

Contractor: \_\_\_\_\_

**► Scope:**

This specification covers PVC Schedule 80 pipe and fittings for pressure applications. This system is intended for pressure applications where the operating temperature will not exceed 140° F.

**► Specification:**

Pipe and fittings shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a cell class of 12454 as identified in ASTM D 1784.

PVC Schedule 80 pipe shall be Iron Pipe Size (IPS) conforming to ASTM D 1785. Injection molded PVC Schedule 80 fittings shall conform to ASTM D 2467. PVC Schedule 80 threaded fittings shall conform to ASTM D 2464. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. Pipe and fittings shall conform to NSF International Standard 61 and the health effects portion of NSF Standard 14.

**► Installation:**

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all applicable plumbing, fire, and building code requirements. Buried pipe shall be installed in accordance with ASTM F 1668 and ASTM D 2774. Solvent cement joints shall be made in a two-step process with a primer meeting ASTM F 656 and a medium- or heavy-bodied solvent cement conforming to ASTM D 2564. The system shall be protected from chemical agents, fire-stopping materials, thread sealant, plasticized-vinyl products or other aggressive chemical agents not compatible with PVC compounds. The system shall be hydrostatically tested after installation. **WARNING!** Never test with or transport/store compressed air or gas in PVC pipe or fittings. Doing so can result in explosive failures and cause severe injury or death.

**► Referenced Standards:**

ASTM D 1784: Rigid Vinyl Compounds  
 ASTM D 1785: PVC Plastic Pipe, Schedule 80  
 ASTM D 2464 or D 2467: PVC Threaded Fittings, Schedule 80  
 ASTM D 2467: PVC Socket Fittings, Schedule 80  
 ASTM D 2564: Solvent Cements for PVC Pipe and Fittings

ASTM D 2774: Underground Installation of Thermoplastic Pressure Piping  
 ASTM F 1668: Procedures for Buried Plastic Pipe  
 NSF Standard 14: Plastic Piping Components & Related Materials  
 NSF Standard 61: Drinking Water System Components—Health Effects



Quarter Bend

Eighth Bend

Cross

Street Quarter Bend

Male Adapter

Bushing

Female Adapter

Cap

Plug

Tee

Coupling

Van Stone Flange

*Not all fitting patterns shown*

**Schedule 80 Tapered Socket Dimensions**

PVC SCHEDULE 80 - ASTM D 2467

Nominal Size	Schedule 80 and Schedule 40 Socket Diameter			Schedule 80 Socket Length C (Minimum)	Schedule 40 Socket Length C (Minimum)
	Entrance A	Bottom B	Tolerance		
1/2	0.848	0.836	±0.004	0.875	0.688
3/4	1.058	1.046	±0.004	1.000	0.719
1	1.325	1.310	±0.005	1.125	0.875
1 1/4	1.670	1.655	±0.005	1.250	0.938
1 1/2	1.912	1.894	±0.006	1.375	1.094
2	2.387	2.369	±0.006	1.500	1.156
2 1/2	2.889	2.868	±0.007	1.750	1.750
3	3.516	3.492	±0.008	1.875	1.875
4	4.518	4.491	±0.009	2.250	2.000
6	6.647	6.614	±0.011	3.000	3.000
8	8.655	8.610	±0.015	4.000	4.000
10	10.780	10.735	±0.015	5.000	5.000
12	12.780	12.735	±0.015	6.000	6.000

**PIPE REFERENCE GUIDE**

Product	Sizes Available																	
	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16
PVC Schedule 80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

- S = SOCKET, SPG = SPIGOT, MPT = MALE PIPE THREAD, FPT = FEMALE PIPE THREAD
- ALL DIMENSIONS ARE IN INCHES.

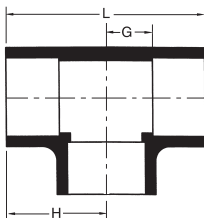
### TOLERANCES

- S = (SOCKET LENGTH) MINIMUM
  - G = (LAYING LENGTH) INTERSECTION OF CENTER LINES TO BOTTOM OF SOCKET/THREAD, 90° ELBOWS, TEES, CROSSES,  $\pm 1/32''$
  - H = INTERSECTION OF CENTER LINES TO FACE OF FITTINGS; 90° ELBOWS, TEES, CROSSES,  $\pm 1/32''$
  - J = (LAYING LENGTH) INTERSECTION OF CENTER LINES TO BOTTOM OF SOCKET/THREAD; 45° ELBOWS,  $\pm 1/32''$
  - L = OVERALL LENGTH OF FITTINGS, (INCLUDING CAPS),  $\pm 1/16''$
  - M = OUTSIDE DIAMETER OF SOCKET/THREAD HUB,  $\pm 1/16''$
  - N = SOCKET/THREAD BOTTOM TO SOCKET/THREAD BOTTOM; COUPLINGS,  $\pm 1/16''$
- DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION.

## Tee

SxSxS

PVC PART NO. 8400



Size	Universal Part Number	L	H	G	Approx Wt. (Lbs.)
1/2	801-005	2 <sup>15</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>9</sup> / <sub>32</sub>	0.11
3/4	801-007	3 <sup>7</sup> / <sub>16</sub>	1 <sup>23</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	0.17
1	801-010	4	2	2 <sup>7</sup> / <sub>32</sub>	0.29
1 1/4	801-012	4 <sup>9</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>32</sub>	1	0.42
1 1/2	801-015	4 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>32</sub>	0.51
2	801-020	5 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	0.84
2 1/2	801-025	6 <sup>15</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>32</sub>	1 <sup>21</sup> / <sub>32</sub>	1.49
3	801-030	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>27</sup> / <sub>32</sub>	2.38
4	801-040	9 <sup>3</sup> / <sub>8</sub>	4 <sup>11</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	3.76
6	801-060	14 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	10.75
8	801-080	17 <sup>19</sup> / <sub>32</sub>	8 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	20.13
10	801-100	21 <sup>17</sup> / <sub>32</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>23</sup> / <sub>32</sub>	31.69
12	801-120	26 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>16</sub>	56.64