



## Performance Engineered & Tested



**SPEARS®** Schedule 40 PVC fitting designs combine years of proven experience with computer generated stress analysis to yield the optimum physical structure and performance for each fitting. Material reinforcement is uniformly placed in stress concentration areas for substantially improved pressure handling capability. Resulting products are subjected to numerous verification tests to assure the very best PVC fittings available.

### Full 1/4" Through 14" Availability

Spears® comprehensive line of PVC fittings offers a variety of injection molded configurations in Schedule 40 sizes 1/4" through 14" conforming to ASTM D 2466.

### Exceptional Chemical & Corrosion Resistance

Unlike metal, PVC fittings never rust, scale, or pit, and will provide many years of maintenance-free service and extended system life.

### High Temperature Ratings

PVC thermoplastic can handle fluids at service temperatures up to 140°F (60°C), allowing a wide range of process applications, including corrosive fluids.

### Lower Installation Costs

Substantially lower material costs than steel alloys or lined steel, combined with lighter weight and ease of installation, can reduce installation costs by as much as 60% over conventional metal systems.

### Higher Flow Capacity

Smooth interior walls result in lower pressure loss and higher volume than conventional metal fittings.

### Additional Fabricated Configurations through 36"

Extra large, hard-to-find, and custom configurations are fabricated from NSF® Certified pipe. Fittings are engineered and tested to provide full pressure handling capabilities according to Spears® specifications.

### PVC Valves

SPEARS® PVC Valve products are available for total system compatibility and uniformity.

### Advanced Design Specialty Fittings

Spears® wide range of innovative, improved products include numerous metal-to-plastic transition fittings and unions with Spears® patented special reinforced (SR) plastic threads.

### 1/2" Through 16" Industrial Pipe Availability

Spears® premium quality Industrial PVC pipe is offered in Schedule 40 White sizes 1/2" through 16".

### Sample Engineering Specifications

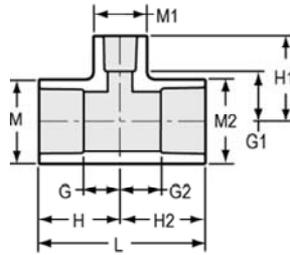
All PVC Schedule 40 fittings shall be produced by Spears® Manufacturing Company from PVC Type I cell classification 12454, conforming to ASTM D 1784. All injection molded PVC Schedule 40 fittings shall be Certified for potable water service by NSF International and manufactured in strict compliance to ASTM D 2466. All fabricated fittings shall be produced in accordance with Spears® General Specifications for Fabricated Fittings.

**Schedule 40 Fittings Technical**  
**Schedule 40 Fittings Dimensions & Information**



**Tee - Reducing**  
 Socket x Socket x Socket

(Continued)



Part Number	Size	G	G1	G2	H	H1	H2	L	M	M1	M2	Approx. Wt. (Lbs.)
D401-166	1-1/4X1/2	23/32	31/32	23/32	1-31/32	2- 3/16	1-31/32	3-29/32	2	1- 1/8	2	.21
401-167	1-1/4X3/4	21/32	31/32	21/32	1-29/32	1-31/32	1-29/32	3-13/16	2	1-11/32	2	.19
401-168	1-1/4X1	13/16	1	13/16	1-15/16	2	1-15/16	3-27/32	2	1- 5/8	2	.21
401-169	1-1/4X1-1/2	1- 3/32	1	1- 3/32	2-11/32	2- 5/16	2-11/32	4-11/16	1-31/32	2- 7/32	1-31/32	.30
401-170	1-1/4X2	1-11/32	1	1-11/32	2-19/32	2- 3/8	2-19/32	5- 3/16	2	2- 3/4	2	.38
401-199	1-1/2X1-1/4X1/2	11/16	1- 1/8	11/16	2	1- 7/8	1-15/16	3-15/16	2- 1/4	1- 1/8	2	.21
401-201	1-1/2X1-1/4X3/4	21/32	1- 5/32	21/32	1-15/16	2- 3/16	1-15/16	3- 7/8	2- 1/4	1-11/32	2	.25
401-202	1-1/2X1-1/4X1	13/16	1- 3/16	13/16	2- 1/8	2- 9/32	2- 1/16	4- 3/16	2- 1/4	1- 5/8	2	.28
401-209	1-1/2X1/2	17/32	1- 3/32	17/32	1-27/32	1-27/32	1-27/32	3-11/16	2- 7/32	1- 1/8	2- 7/32	.22
D401-209	1-1/2X1/2	17/32	1- 1/16	17/32	1-27/32	2- 5/16	1-27/32	3-11/16	2- 7/32	1- 1/16	2- 7/32	.22
401-210	1-1/2X3/4	21/32	1- 3/32	21/32	1-31/32	2- 3/32	1-31/32	3-29/32	2- 7/32	1- 5/16	2- 7/32	.24
401-211	1-1/2X1	25/32	27/32	25/32	2- 3/32	1-31/32	2- 3/32	4- 3/16	2- 7/32	1- 5/8	2- 7/32	.27
401-212	1-1/2X1-1/4	1	1- 3/16	1	2- 9/32	2- 7/16	2- 9/32	4-19/32	2- 1/4	2	2- 1/4	.31
401-213	1-1/2X2	1- 5/16	1- 3/16	1- 5/16	2- 5/8	2- 9/16	2- 5/8	5- 7/32	2- 1/4	2- 3/4	2- 1/4	.39
401-214	1-1/2X2-1/2	1-21/32	1- 3/16	1-21/32	2-31/32	2-15/16	2-31/32	5-15/16	2- 1/4	3-11/32	2- 1/4	.58
401-233	2X1X2	1- 1/4	1- 1/4	1- 7/32	2-19/32	2-19/32	2-11/32	5	2- 3/4	2- 3/4	1- 5/8	.40
401-238	2X1-1/2X3/4	21/32	1-13/32	21/32	2- 1/32	2-13/32	1-31/32	4	2-23/32	1- 5/16	2- 1/4	.31
401-239	2X1-1/2X1	13/16	1- 1/2	13/16	2- 1/8	2- 5/8	2- 1/8	4- 9/32	2- 3/4	1- 5/8	2- 1/4	.36
401-241	2X1-1/2X1-1/2	1	1- 9/32	1- 1/32	2- 3/8	2- 9/16	2- 5/16	4-11/16	2-23/32	2- 7/32	2- 7/32	.37
401-247	2X1/2	35/64	1-11/32	35/64	1-59/64	2- 3/32	1-59/64	3-27/32	2-23/32	1- 3/32	2-23/32	.32
D401-247	2X1/2	9/16	1- 7/32	9/16	1-15/16	2- 1/2	1-15/16	3- 7/8	2-23/32	1- 1/16	2-23/32	.30
401-248	2X3/4	21/32	1- 1/2	21/32	2- 1/32	2- 1/16	2- 1/32	4- 1/16	2- 3/4	1-11/32	2- 3/4	.32
401-249	2X1	13/16	1- 3/8	13/16	2- 3/16	2- 1/2	2- 3/16	4- 3/8	2-23/32	1- 5/8	2-23/32	.36
401-250	2X1-1/4	1	1- 3/8	1	2- 3/8	2- 5/8	2- 3/8	4-23/32	2-23/32	1-31/32	2-23/32	.39
401-251	2X1-1/2	1- 1/16	1- 5/16	1- 1/16	2- 3/8	2- 9/16	2- 3/8	4- 3/4	2-23/32	2- 1/4	2-23/32	.42
401-253 <sup>1</sup>	2X3	2- 7/8	1-13/16	2- 7/8	4- 1/4	3-13/16	4- 1/4	8- 1/2	4	4	3-15/16	2.34
401-254 <sup>1</sup>	2X4	3-13/32	2- 3/8	3-13/32	4-25/32	4- 3/8	4-25/32	9- 9/16	5- 1/16	5- 1/16	5- 1/16	4.06
401-287	2-1/2X1/2	25/32	1-15/32	25/32	2-17/32	2- 7/32	2-17/32	5- 1/16	3- 5/16	1- 1/16	3- 5/16	.56
401-288	2-1/2X3/4	7/8	1- 9/16	7/8	2- 5/8	2- 1/2	2- 5/8	5- 9/32	3- 5/16	1- 5/16	3- 5/16	.59
401-289	2-1/2X1	13/16	1-17/32	13/16	2-13/16	2-21/32	2-13/16	5- 5/8	3- 5/16	1- 5/8	3- 5/16	.64
401-290	2-1/2X1-1/4	1- 7/32	1-21/32	1- 7/32	2-31/32	2-29/32	2-31/32	5-31/32	3-11/32	2- 1/32	3-11/32	.74
401-291	2-1/2X1-1/2	1- 3/16	1- 5/8	1- 3/16	2-31/32	2-15/16	2-31/32	5-15/16	3-11/32	2- 1/4	3-11/32	.69
401-292	2-1/2X2	1-13/32	1-21/32	1-13/32	3- 3/16	3- 1/32	3- 3/16	6- 3/8	3- 5/16	2- 3/4	3- 5/16	.76
401-293 <sup>1</sup>	2-1/2X3	2- 1/4	1-31/32	2- 1/4	4- 1/4	3-13/16	4- 1/4	8-15/32	4	4	4	2.15
401-294 <sup>1</sup>	2-1/2X4	2- 3/4	2- 3/8	2- 3/4	4- 3/4	4- 3/8	4- 3/4	9- 1/2	5- 1/16	5	5- 1/16	3.85
401-333	3X1/2	11/16	1-13/16	11/16	2- 9/16	2-17/32	2- 9/16	5- 1/32	3-31/32	1- 3/32	3-31/32	.70
401-334	3X3/4	3/4	2	3/4	2-21/32	3	2-21/32	5- 9/32	4	1-11/32	4	.84
401-335	3X1	29/32	1-25/32	29/32	2-51/64	2-29/32	2-51/64	5-19/32	3-31/32	1-19/32	3-31/32	.83
401-336	3X1-1/4	1- 7/32	1-31/32	1- 7/32	2-31/32	3- 7/32	2-31/32	5-15/16	4	2	4	.92
401-337	3X1-1/2	1- 7/32	1-13/16	1- 7/32	3- 3/32	3- 1/8	3- 3/32	6- 3/16	4- 1/16	2- 7/32	4- 1/16	.98
401-338	3X2	1- 7/16	1-13/16	1- 7/16	3-11/32	3- 3/16	3-11/32	6-11/16	3-31/32	2-23/32	3-31/32	1.04
401-339	3X2-1/2	1- 3/4	1-31/32	1- 3/4	3- 5/8	3-11/16	3- 5/8	7- 1/4	4- 3/16	3-17/32	4- 3/16	1.91
401-342	3X4	2-19/32	2	2-19/32	4- 1/2	4- 1/32	4- 1/2	8-31/32	3-31/32	5- 1/32	3-31/32	1.78
401-344 <sup>1</sup>	3X6	5- 1/2	4	5- 1/2	7- 1/2	7	7- 1/2	15	7- 1/4	7- 1/4	7- 1/4	10.33