



## SADDLES & SNAP-ON SADDLES

When Assembling Spears® Saddles to PVC pipe, Spears® Manufacturing Company recommends Spears® PVC-19 Solvent Cement and Spears® Primer-68/Primer-70 or equivalent. Although good connections may be accomplished without saddle straps, Spears® Manufacturing Company recommends the use of clamp or strap device during the assembly step to ensure good compression between the pipe and fitting surfaces as the solvent cures. Solvent cemented saddles are non pressure rated. For additional information, contact Spears® Technical Service.

### LARGE DIAMETER NPR SADDLE INSTALLATION

Spears® Large Diameter Non-Pressure Rated (NPR) Saddles are designed for use with PVC pipe in open ended, drainage applications. A supplemental clamping strap must be used to eliminate gaps and ensure good compression and proper fit between the pipe and the saddle surfaces as the solvent cement cures. Clamping straps/kits are commercially available and are not included with saddle. Proper installation requires adequate application of solvent cement and immediate clamping in position with the clamping straps.

#### Additional Items Needed

Marking Pen	60-Grit Sandpaper	Large Roller Applicator
1/2" Wrench	Primer (Spears® Primer-68/Primer-70)	Clamping Straps
Hole Saw	Solvent Cement (Spears® PVC-19)	
Power Drill	Primer & Cement Use Containers	

#### Step 1: Dry-fit Saddle, Mark Location of Saddle and Hole, Prepare Clamping Straps

Check for adequate clearance of saddle and that clamping straps can be installed. Position saddle on pipe aligning branch and desired hole centers. Mark outline of saddle, branch hole and center. Prepare two (2) clamping straps of appropriate length (one strap will be used on each side of branch).

#### Step 2: Cut Hole in Pipe

Remove saddle; verify system is drained. Drill hole at marked center location using appropriate size hole saw.

#### Step 3: Sand Pipe and Saddle Contact Areas with 60-Grit Sandpaper

Thoroughly rough up the marked outline area on the pipe and on the underside of the saddle using 60-grit sandpaper. Sand in direction of pipe (parallel), then crosswise of pipe (perpendicular) until rough and all gloss is removed. Give attention to area around the branch on both pipe and saddle.

#### Step 4: Apply Primer to Pipe and Saddle

Work several coats into the roughened pipe area and underside of saddle, giving attention to the area around the branch on both. Primer until the surfaces are softened using a large roller applicator.

#### Step 5: Apply a Liberal Quantity of Cement to Pipe and Saddle

Apply several coats (minimum 3) one after the other to build up cement on pipe and saddle contact areas. Avoid removing previous coat with each application. **DO NOT** allow cement to dry out between coats. Again, give attention to area around the branch on both pipe and saddle. For threaded saddles, avoid runs or drips in the branch fitting threads.

#### Step 6: Immediately Install Saddle and Tighten Clamping Straps

Position saddle and locate clamping straps midway between branch and end on each side of branch. This should be done immediately while cement is still wet. Avoid excessive movement that might dislocate proper positioning (assistance is recommended). Tighten straps tight to firmly press saddle onto pipe. A thick glue-bead should be forced out around the saddle edges and inside the branch joint. If no bead, quickly remove saddle and apply more cement.

#### Step 7: Allow Cement Joint to Cure

Cure for same time and conditions as required for standard solvent cement pipe joints of the same size in the system.

#### Snap-On Saddle Installation Instructions

- The surface to be joined must be wiped clean.
- Using an appropriate applicator, apply a coat of primer to the fitting and pipe.
- While the primer is still wet, apply a generous coat of medium bodied cement first to the pipe, then to the fitting and then to the pipe again, covering an area of the pipe slightly larger than the saddle.
- Without delay, push the saddle onto the pipe and rotate the fitting approximately 15° in each direction to evenly distribute the cement.
- Allow cement to cure.
- Drill fitting and pipe with the recommended size hole saw.
- Remove debris from the line.
- Follow all safe handling precautions.

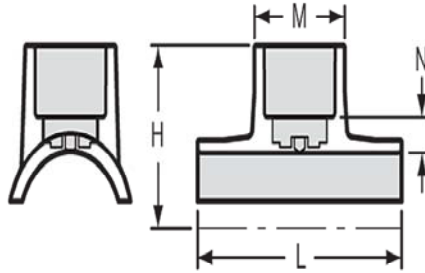
Solvent cemented saddles are non pressure rated. For additional information, contact Spears® Technical Service.



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

**Saddle**

IPS O.D. x Socket  
 NSF-61



Part Number	Size	H	L	M	N	Approx. Wt. (Lbs.)
463-288	2-1/2X3/4	2- 9/16	5- 5/16	1-11/32	1/16	.23
463-333 <sup>1</sup>	3X1/2	3-9/16	6-11/32	2- 3/8	1-1/16	.62
463-335 <sup>1</sup>	3X1	3-21/32	6-11/32	2- 3/8	25/32	.62
463-336 <sup>1</sup>	3X1-1/4	3-21/32	6-11/32	2- 3/8	21/32	.57
463-337	3X1-1/2	3- 5/16	6-11/32	2- 3/8	5/16	.51
463-338 <sup>2</sup>	3X2	5	6-11/32	2- 3/4	1- 7/8	.72
463-415 <sup>1</sup>	4X1/2	4	6- 5/16	2- 3/8	1	.67
463-417 <sup>1</sup>	4X1	4-3/32	6- 5/16	2- 3/8	23/32	.68
463-418 <sup>1</sup>	4X1-1/4	4-1/16	6-5/16	2- 3/8	9/16	.62
463-419	4X1-1/2	3-13/16	6-5/16	2-3/8	9/32	.56
463-420 <sup>2</sup>	4X2	5- 1/2	6-5/16	2- 3/4	1-7/8	.77
463-485 <sup>1</sup>	5X1-1/2	5-3/16	7- 1/8	2-25/32	1-1/16	1.07
463-486	5X2	5	7- 1/8	2-25/32	1/4	.94
463-523 <sup>1</sup>	6X1/2	5-7/32	6-3/8	2-3/8	1-5/32	.79
463-525 <sup>1</sup>	6X1	5-1/4	6- 3/8	2-3/8	13/16	.80
463-526 <sup>1</sup>	6X1-1/4	5-1/4	6-3/8	2- 3/8	11/16	.74
463-527	6X1-1/2	4-21/32	6-3/8	2-3/8	3/8	.68
463-528 <sup>2</sup>	6X2	6- 9/16	6-3/8	2- 3/4	1- 7/8	.89
463-530 <sup>1</sup>	6X3	5-15/16	11-15/16	5- 1/16	11/16	2.73
463-532	6X4	5-17/32	11-15/16	5	7/32	1.94
463-573 <sup>1</sup>	8X1/2	6- 9/16	6-11/32	2- 3/8	1- 1/2	.93
463-575 <sup>1</sup>	8X1	6-1/2	6-11/32	2- 3/8	1-1/16	.94
463-576 <sup>1</sup>	8X1-1/4	6-1/2	6-11/32	2- 3/8	1	.88
463-577	8X1-1/2	6-1/4	6-11/32	2- 3/8	21/32	.83
463-578 <sup>2</sup>	8X2	7-3/4	6-11/32	2- 3/4	2-1/16	1.03
463-580 <sup>1</sup>	8X3	6-7/8	11-15/16	5-1/16	11/16	2.91
463-582	8X4	6-17/32	11-15/16	5- 1/32	7/32	2.12
463-624	10X4	7-19/32	11-15/16	5-1/32	7/32	2.19

<sup>1</sup> Outlet-sized with Bushing

<sup>2</sup> Outlet-sized with Coupling

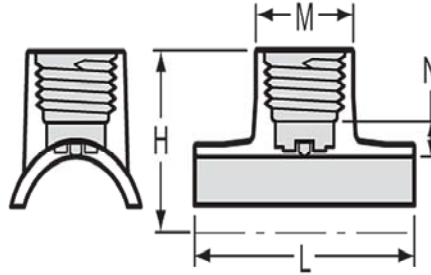


Schedule 40 Fittings Technical  
**Schedule 40 Saddles Dimensions & Information**



**Saddle**

IPS O.D. x Fipt  
 NSF-61

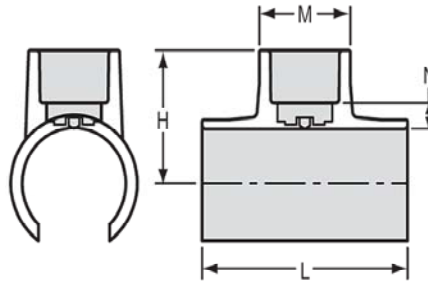


Part Number	Size	H	L	M	N	Approx. Wt. (Lbs.)
464-071	1/2X1/8	1	2- 1/8	19/32	1/8	.02
464-097	3/4X1/8	1- 1/8	2- 1/8	19/32	1/8	.03
464-288	2-1/2X3/4	2- 9/16	5-5/16	1-11/32	5/16	.23
464-337	3X1-1/2	3- 9/32	6-11/32	2- 3/8	13/32	.53
464-419	4X1-1/2	3-13/16	6-5/16	2- 3/8	1/2	.56
464-486	5X2	5	7-1/8	2- 3/4	1-1/8	.99
464-527	6X1-1/2	5	6-3/8	2-3/8	3/8	.69
464-532	6X4	5-1/4	11-15/16	5	9/32	1.92
464-577	8X1-1/2	6- 7/32	6-11/32	2- 3/8	19/32	.78
464-582	8X4	6-9/32	11-15/16	5-1/32	9/32	2.15
464-624	10X4	7- 5/16	11-15/16	5	1/4	2.03

**Saddle Installation Instructions:** When Assembling Spears® Saddles to PVC pipe, Spears® Manufacturing Company recommends Spears® PVC-19 Extra Heavy Body Solvent Cement and Spears® PRIMER-68 or PRIMER-70, or equivalent. Although good connections may be accomplished without saddle straps, Spears® Manufacturing Company recommends the use of clamp or strap device during the assembly step to ensure good compression between the pipe and fitting surfaces as the solvent cures. Solvent cemented saddles are non pressure rated. For additional information, contact Spears® Technical Service.

**Snap-On Saddle**

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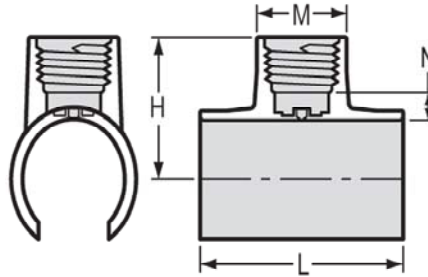
Part Number	Size	H	L	M	N	Approx. Wt. (Lbs.)
463-005	1/2	1-3/8	2- 1/2	1- 3/32	7/32	.05
463-007	3/4	1-23/32	3- 1/8	1- 5/16	3/16	.08
463-010	1	1-15/16	3- 5/8	1- 5/8	5/32	.13
463-012	1-1/4	2- 1/4	4- 1/4	2	5/32	.20
463-015	1-1/2	2-13/32	4- 7/16	2-13/32	5/32	.24
463-020	2	2-3/4	5- 1/4	2-3/4	5/32	.39
463-101	3/4X1/2	1-15/32	2- 3/4	1- 3/32	3/16	.06
463-130	1X1/2	1-19/32	3- 1/2	1- 3/32	3/16	.10



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IPS O.D. x Fipt



Part Number	Size	H	L	M	N	Approx. Wt. (Lbs.)
464-005	1/2	1-11/32	2- 1/2	1-3/32	3/16	.05
464-007	3/4	1-23/32	3-1/8	1- 5/16	13/32	.08
464-010	1	1-15/16	3- 5/8	1- 5/8	5/16	.14
464-071	1/2X1/8	1	2- 1/8	19/32	1/8	.02
464-097	3/4X1/8	1- 1/8	2- 1/8	19/32	1/8	.03
464-101	3/4X1/2	1- 7/16	2- 3/8	1-3/32	3/16	.05
464-130	1X1/2	1-9/16	2-7/8	1-3/32	3/16	.07
464-131	1X3/4	1-9/16	3	1-5/16	3/16	.09
464-210	1-1/2X3/4	1-15/16	3-1/2	1- 5/16	3/16	.15

