



Backwater Valves



Basic Valve

Features - PVC Gray

Backwater Valves are designed to prevent backflow in numerous applications where easy service access for maintenance and cleaning is needed. Excellent for use in sanitary or storm sewer drainage systems to prevent waste back up due to inadequate drainage, for balancing multi-level ponds, aquaculture features or storage tank systems, and many other applications. Spears® Backwater Valve has been engineered for improved function and easier service, especially in buried service with use of optional Service-Access Extension Kit.

- All PVC Construction with EPDM Flapper Seal
- Threaded Top Plug for Convenient Service
- Simple Snap-In Internal Flapper Assembly for Easy Replacement
- Optional Factory Assembled Service-Access Extension Kits - External Housing with Internal Extension for Convenient Removal, Inspection or Replacement
- Optional Extension Components Kits for Assembly with User-Supplied Pipe
- Available in Sizes 2", 3", 4" and 6" with Socket Ends
- Direct Connection to ASTM D 2665 PVC DWV or other IPS size pipe. Spears® IPS x Sewer Adapters Available for Connection to ASTM 3034 Sewer
- Conforms to ASME/ANSI A112.14.1 for Backwater Valves
- Pressure Rated to 43 psi (100 feet of head) @ 73°F

Sample Engineering Specification

All thermoplastic valves shall be Backwater type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454. All Valve Seats shall be EPDM. All valves shall have external Arrow Flow Indicator. All valves shall be pressure rated to 43 psi (100 feet of Head) for water @ 73°F as manufactured by Spears® Manufacturing Company.

Quick-View Backwater Valve Selection Chart Standard Valve

| Valve Size | Seat Material | PVC Material | Pressure Rating |
|------------|---------------|--------------|------------------------------|
| | | Socket | |
| 2 | EPDM | S275P | 43 psi (100 feet of Head) |
| 3 | EPDM | S375P | |
| 4 | EPDM | S475P | |
| 6 | EPDM | S675P | |



Valve with Extension Kit

PVC Service-Access Extension Kit Options:

Available as a complete unit, with or without valve, factory assembled to internal flap assembly, extension pipe, and external extension housing with top access adapter in convenient increments of 12", 16", 20", 24", 36", and 48" (measured from top of valve to top of extension). All extension kits can be cut shorter in the field for custom fits. Also available as Extension Components Kits, with or without valve for assembly with user-supplied Class 125 or Schedule 40 pipe. Kits without valve require use of existing valve top Access Plug, all kits require solvent cement assembly to valve. Contact Spears® for pricing on custom cut lengths.

Quick View Extension Components Kit Options

Extension Adapters and Flap Assembly with or without valve. Must be assembled with user-supplied Class 125 or Schedule 40 Pipe.

| Valve Size | Socket Valve With Extension Component Kit | Extension Component Kit Only | Pressure Rating |
|------------|---|------------------------------|------------------------------|
| 2 | S275P-AK | S275P-ECK | 43 psi (100 feet of head) |
| 3 | S375P-AK | S375P-ECK | |
| 4 | S475P-AK | S475P-ECK | |
| 6 | S675P-AK | S675P-ECK | |

Backwater Valves



Quick View Backwater Valves with Extension Kit to Premade Lengths

Socket Valve with complete Extension Assembly in precut lengths.

| Valve x Extension Size ¹ | Socket Valve With Extension | Valve x Extension Size ¹ | Socket Valve With Extension | Pressure Rating |
|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|------------------------------|
| 2 x 12HT | S275P-120 | 4 x 12HT | S475P-120 | 43 psi (100 feet of head) |
| 2 x 16HT | S273P-160 | 4 x 16HT | S473P-160 | |
| 2 x 20HT | S275P-200 | 4 x 20HT | S475P-200 | |
| 2 x 24HT | S275P-240 | 4 x 24HT | S475P-240 | |
| 2 x 36HT | S275P-360 | 4 x 36HT | S475P-360 | |
| 2 x 48HT | S275P-480 | 4 x 48HT | S475P-480 | |
| 3 x 12HT | S375P-120 | 6 x 12HT | S675P-120 | |
| 3 x 16HT | S373P-160 | 6 x 16HT | S673P-160 | |
| 3 x 20HT | S375P-200 | 6 x 20HT | S675P-200 | |
| 3 x 24HT | S375P-240 | 6 x 24HT | S675P-240 | |
| 3 x 36HT | S375P-360 | 6 x 36HT | S675P-360 | |
| 3 x 48HT | S375P-480 | 6 x 48HT | S675P-480 | |

1 - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches).

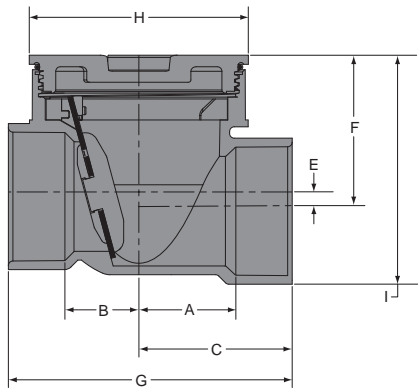
Quick View Service Access Extension Kit Only In Premade Lengths (valve not included)

Extension Assembly in precut lengths. Use exiting valve top Access Plug.

| Size ¹ | Premade Extension | Size ¹ | Premade Extension | Pressure Rating |
|-------------------|-------------------|-------------------|-------------------|------------------------------|
| 2 x 12HT | SAEK-020-120 | 4 x 12HT | SAEK-040-120 | 43 psi (100 feet of head) |
| 2 x 16HT | SAEK-020-160 | 4 x 16HT | SAEK-040-160 | |
| 2 x 20HT | SAEK-020-200 | 4 x 20HT | SAEK-040-200 | |
| 2 x 24HT | SAEK-020-240 | 4 x 24HT | SAEK-040-240 | |
| 2 x 36HT | SAEK-020-360 | 4 x 36HT | SAEK-040-360 | |
| 2 x 48HT | SAEK-020-480 | 4 x 48HT | SAEK-040-480 | |
| 3 x 12HT | SAEK-030-120 | 6 x 12HT | SAEK-060-120 | |
| 3 x 16HT | SAEK-030-160 | 6 x 16HT | SAEK-060-160 | |
| 3 x 20HT | SAEK-030-200 | 6 x 20HT | SAEK-060-200 | |
| 3 x 24HT | SAEK-030-240 | 6 x 24HT | SAEK-060-240 | |
| 3 x 36HT | SAEK-030-360 | 6 x 36HT | SAEK-060-360 | |
| 3 x 48HT | SAEK-030-480 | 6 x 48HT | SAEK-060-480 | |

1 - Size designates nominal valve size x extension height (HT-top of valve to top of extension, inches). All extension kits can be cut shorter in the field for custom fits.

STANDARD VALVE



Standard Valve Dimensions

| Size | A | B | C | E | F | G | H | I |
|------|---------|-------|--------|-------|--------|----------|--------|----------|
| 2 | 1-13/16 | 1-3/4 | 2-5/8 | 5/16 | 3-1/4 | 5-9/32 | 4-3/16 | 4-9/16 |
| 3 | 2-5/8 | 2 | 4-3/16 | 13/32 | 4-1/8 | 7-3/4 | 6 | 6-1/8 |
| 4 | 3-5/8 | 3-3/4 | 5-7/16 | 23/32 | 5-7/16 | 10-15/16 | 8-1/4 | 7-15/16 |
| 6 | 4-3/4 | 4-5/8 | 7-3/4 | 13/16 | 7-3/16 | 15-3/8 | 11-1/4 | 10-13/16 |

VALVE WITH EXTENSION KIT

Valve with Extension Kit Dimensions (Inches)

| HEIGHT-D |
|----------|
| 12 |
| 16 |
| 20 |
| 24 |
| 36 |
| 48 |

D = Top of plug Standard Valve to top of plug with Extension

