

### UTILITY SWING & SPRING CHECK VALVES



#### Sample Engineering Specification

All thermoplastic check valves Shall be Utility Swing Check or Utility Spring Check type constructed form PVC Type I, ASTM D 1784 Cell Classification 12454. All valves shall be maintenance free seal unit construction with EPDM seat and weighted disc. All Spring Check Valves shall have stainless steel spring assisted operation. All valves shall have external flow arrow direction designation. All valves shall be certified by NSF International for use in potable water service. All valves shall be pressure rated to 150 psi for water @73°F in full flow (open) position and to 75 psi @ 73°F back pressure (closed), as manufactured by Spears<sup>®</sup> Manufacturing Company.

# Quick-View Utility Swing Check Valve Selection Chart

Valve	Seat		Pressure		
Size	Material	Socket	Threaded	SR Threaded	Rating
1/2	EPDM	S1520-05	S1520-05F	S1520-05FSR	
3/4	EPDM	S1520-07	S1520-07F	S1520-07FSR	
1	EPDM	S1520-10	S1520-10F	S1520-10FSR	150 psi
1-1/4	EPDM	S1520-12	S1520-12F	S1520-12FSR	@ 73°F Full Flow
1-1/2	EPDM	S1520-15	S1520-15F	S1520-15FSR	(Open)
2	EPDM	S1520-20	S1520-20F	S1520-20FSR	
2-1/2	EPDM	S1520-25	S1520-25F	S1520-25FSR	75 psi
3	EPDM	S1520-30	S1520-30F	S1520-30FSR	Back Pressure
4	EPDM	S1520-40	S1520-40F	S1520-40FSR	(Closed)
6	EPDM	S1520-60	S1520-60F	S1520-60FSR	· · /
8	EPDM	S1520-80	N/A	N/A	

<sup>1:</sup> For PVC Clear Swing Check, replace dash (-) separator with the letter "C" in the part number (e.g. S1520C05), (e.g. S1520C05F) or (e.g. S1520C05FSR)

#### Features - PVC White & PVC Clear

Spears<sup>®</sup> Utility Swing Check and spring assisted Utility Spring Check Valves offer a compact, high performance check valve for Landscape & Irrigation, Pool & Spa, Aquaculture, OEM and many general purpose applications. These maintenance free sealed units feature long-life EPDM elastomer seats with weighted disc for full-flow with minimal restriction and positive shutoff. Spring assisted "Spring Check" model incorporates a positive-pressure spring to assist in valve closing without slamming. Produced from PVC White or PVC Clear material with Socket, Threaded or SR Threaded end connectors. Available in IPS Sizes 1/2" through 8" for Swing Check Valves and 1/2" through 4" for Spring Check Valves.

- Chemical & Corrosion Resistant PVC White or High Visibility PVC Clear Construction
- No Metal Parts on Swing Check Stainless Steel Spring on Spring Check
- Maintenance Free Sealed Unit in a Compact Space Saving Design
- Engineered for Maximum Flow, Quick Response & Positive Shutoff
- Long-Life, High Grade EPDM Seat with Weighted Disc
- Spring Assisted Spring Check Model Option for Positive Closing
- Sizes 1/2" 8" Pressure Rated to 150 psi @ 73°F Full-Flow (open) and 75 psi @ 73°F Back Pressure (closed)
- Suitable for either Horizontal or Vertical Up-flow Installations and Vacuum Service
- NSF Certified for Potable Water Use
- Silicone-Free Assembly

#### Quick-View Utility Spring Check Valve Selection Chart

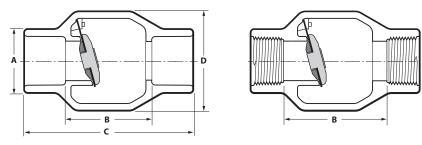
Valve	Seat		Pressure			
Size	Material	Socket	Threaded	SR Threaded	Rating	
1/2	EPDM	S1580-05	S1580-05F	S1580-05FSR		
3/4	EPDM	S1580-07	S1580-07F	S1580-07FSR	150 psi	
1	EPDM	S1580-10	S1580-10F	S1580-10FSR	@ 73°F Full Flow	
1-1/4	EPDM	S1580-12	S1580-12F	S1580-12FSR	(Open)	
1-1/2	EPDM	S1580-15	S1580-15F	S1580-15FSR	× • <i>′</i>	
2	EPDM	S1580-20	S1580-20F	S1580-20FSR	75 psi	
2-1/2	EPDM	S1580-25	S1580-25F	S1580-25FSR	Back Pressure	
3	EPDM	S1580-30	S1580-30F	S1580-30FSR	(Closed)	
4	EPDM	S1580-40	S1580-40F	S1580-40FSR	、 <i>,</i>	

1: For PVC Clear Spring Check, replace dash (-) separator with the letter "C" in the part number (e.g. S1580C05), (e.g. S1580C05F) or (e.g. S1580C05FSR)

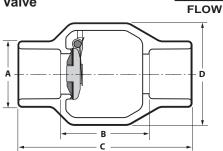
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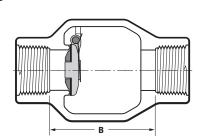


**Utility Swing Check Valve** 



Utility Spring Check Valve





#### Dimensions

	Dimension Reference (inches, ± 1/16)											
Nominal Size	А		В	С	D							
0.20		Socket	Threaded/SR Threaded	C	Swing	Spring						
1/2	1-3/8	2-19/32	2-5/8	4-3/32	2-1/8	2-5/8						
3/4	1-3/8	2-5/32	2-1/16	4-1/16	2-1/8	2-5/8						
1	1-11/16	2-5/16	2-15/16	4-9/16	2-5/8	2-5/8						
1-1/4	2-1/16	2-15/16	3-5/8	5-1/2	3-3/8	3-3/8						
1-1/2	2-7/16	3	3-11/16	5-5/8	3-3/8	3-3/8						
2	3	3-5/8	4-3/8	6-3/8	4-1/4	4-1/4						
2-1/2	3-9/16	4-3/8	5-1/4	7-7/8	5-1/8	5-1/8						
3	4-5/16	4-11/16	5-5/8	8-7/16	5-3/4	5-3/4						
4	5-1/4	6	7-1/16	10-1/16	6-3/8	6-3/8						
6	7-11/16	8-1/2	11-5/16	14-9/16	9-1/4	N/A						
8	9-7/16	11-3/16	N/A	19-1/4	11-15/16	N/A						

**General Installation Information:** Utility Swing check valves are designed for horizontal installations, but may be installed in up-flow only vertical position. Check valves **MUST** be installed with the valves **FLOW** arrow pointing in the direction of the flow. Do not install valve upside down. Flow velocity should not exceed 5ft./sec. Minimum opening pressure less than 0.5 psi.

System Operating Temperature °F (°C)		100 (38)	110 (43)	120 (49)	130 (54)	140 (60)	150 (66)	160 (71)	170 (77)	180 (82)	190 (88)	200 (93)	210 (99)	
Valve Pressure Rating psi (MPa)	1/2" - 8" PVC		150 (1.03)	135 (.93)	110 (.76)	75 (.52)	50 (.34)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)	-0- (-0-)
		PVC	150 (1.03)	140 (.97)	130 (.90)	120 (.83)	-110- (.76)	-100- (.70)	-90- (.62)	-80- (.55)	-70- (.48)	-60- (.41)	-50- (.34)	-0- (-0-)

#### **Temperature Pressure Rating**