Johnson Screens

A brand of
Aqseptence Group

Shur-Grip® Spline PVC Casing and Screen

Johnson Screens' Shur-Grip Spline PVC connection is the industry's fastest and easiest installation of flush joint casing and screen for water wells.

Features and Benefits

- Button Spline design allows for easy insertion and is recessed into the joint —no need to cut excess spline.
- The Shur-Grip groove and Johnson Screen's Elevator provides superior holding of the entire assembly.
- Flush Joint male-x-female connection reduces borehole size and greatly reduces the possibility of bridging during grouting or gravel packing.
- Internal O-ring design provides exceptional sealing
- Johnson Screens' stainless steel screens can be easily connected to PVC Casing.

Nominal Pipe Size (in.)	Pipe Class	Outside Dia. (in.)	Min. Wall Thickness (in.)	Average Inside Dia. (in.)	Wt/Ft. (lbs.)	Recommended Working Tensile Strength (lbs.)	Max. Tested Tensile Strength (lbs.)	Resistance to Hydraulic Collapse (psi.)	Ft/Pallet
6.9	SDR17	6.90	0.41	6.02	5.22	8,130	16,260	200	400
8	SDR17	8.63	0.51	7.57	8.40	13,050	26,100	215	180
10	SDR17	10.75	0.63	9.38	13.27	13,770	27,540	215	140
12	SDR17	12.75	0.75	11.13	18.89	26,130	52,260	215	80
14	SDR17	14.00	0.83	12.21	22.55	27,700	55,400	215	60
16	SDR17	16.00	0.94	13.95	31.66	29,000	58,000	215	60
	SDR21	16.00	0.76	14.388	23.76	16,660	33,320	111	60
17.4	SDR17	17.40	1.02	15.25	35.46	44,500	89,000	215	60/40

Note: Resistance to Hydraulic Collapse Pressure determined at 72 degrees F (No Safetry Factor Included). A sufficient safety margin for material strengths should be used in well construction and design to account for unforeseen loads placed on the screen and casing during construction. Consult ASTM F 480 - 06b for considerations for use of thermoplastic water well casing pipe.

Slotted screen availability

Size (in.)	Pipe Class	Rows	Spacing (in.)	Available Slot Sizes- Net open Area (square in. per ft.)									
				0.020	0.025	0.030	0.032	0.040	0.050	0.060	0.080	0.100	0.125
6.9	SDR17	6	0.250	9.67	11.87	13.99	14.81	18.00	12.76	25.27	31.65	37.30	
		6	0.375										30.38
8	SDR17	8	0.250	9.33	11.45	13.50	14.30	17.38	21.00	24.39	30.55	36.00	
		6	0.375										42.75
10	SDR17	8	0.375			10.67	11.32	13.88	16.94	19.86	25.32	30.32	36.00
12	SDR17	8	0.375					20.24	24.70	28.96	36.91	44.20	52.49
14	SDR17	8	0.375					23.72	28.95	33.94	42.26	51.80	61.51
16	SDR17	10	0.375						29.12	34.15	43.53	52.12	61.89
	SDR21	10	0.375					26.02	31.76	37.24	47.47	56.84	67.50
17.4	SDR17	10	0.375						31.76	37.24	47.47	56.84	67.50

Note: True open area calculated on the inside slot length. Custom slotting available.

PVC Pipe behavior at different temperatures

Temperature (F°)	40.0	50.0	60.0	70.0	73.4	80.0	90.0	100.0	110.0	120.0	130.0	140.0
Temperature (C°)	4.0	10.0	16.0	21.0	23.0	27.0	32.0	38.0	43.0	49.0	54.0	60.0
Conversion Factor	1.4	1.3	1.15	1.04	1	0.88	0.75	0.62	0.51	0.4	0.31	0.22

Note:

- PVC pipe exhibits a decreasing pressure rating and stiffness with increasing temperature. As with dimensions, the pressure ratings and published pipe stiffness figures for PVC pipe are listed at an ambient temperature of 73°F
- To determine the pressure ratings and stiffness of PVC pipe at highter or lower temperatures, multiply the pressure rating, pressure class, and the stiffness/deflection by the pipe's conversion factor.
- The typical upper limit for contiuous use of PVC pipe is 140°F.

The PVC materials used in the Johnson Screens brands are listed by NSF International and comply to NSF Standard 61, safe for use in potable water applications. Shur-Grip pipe is made from PVC compound having a cell classification of 12454 and complies with both ASTM D2241 and F480 standards.

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