JOHNSON SCREENS

Stainless Steel Water Well Screens

Stainless Steel Water Well Screens and Accessories

Johnson Screens is one of the largest manufacturers of stainless steel water well screens in the world. With a high open area, allowing for better access to the entire formation around the screen; fines and drilling fluid are removed quickly and completely, resulting in a better well development.

Technical support and design assistance

- Sand analysis of formation materials
- Screen size recommendations
- Screen installation suggestions
- Well construction consultation

Technical staff includes: design engineers, welders, technical support personnel and sales engineers who have been on the factory floor, presented in classrooms and technical seminars, set and pulled screens and run pumping test.

Less Maintenance

The continuous Vee-Wire® slot design allows for lower entrance velocity of the water, reducing encrustation rates. The slot design also resists plugging and prevents sand from damaging pumps.

Pumping Costs

The high open area of the Vee-Wire well screen allows for water to enter the well freely, resulting in minimal drawdown and less energy usage by a pump.

Optimal Performance Through

- Screens designed to site-specific yield requirements and aquifer characteristics
- Screen slot opening selected from formation sand sample analysis
- Wire and rod construction to deliver required strength for the specified well depth
- Stainless material selected to maximize corrosion resistance for water chemistry
- Wide variety of fittings to facilitate secure and efficient installation

Sand Control

The water well screen is a key component of the sand control system, either as an integral component of the gravel pack, or as a standalone provider of sand control. Patented Vee-Wire technology and welded construction, help to prevent well screen failure by better controlling the sand.

Water Well and Environmental Screens 60 Wire Construction 304 and 316 Stainless Steel

Size (in.)	OD (in.)	ID (in.)	Screen Weight[1] (lbs./ft.)	Max Depth (ft.)	Tensile Strength[2] (lbs.)	Recom. Hang Weight[3] (lbs.)	Column Strength[4] (lbs.)
1.25	1.7	1.1	1.8	1,000	4,200	2,100	3,100
2P*	2.5	1.99**	1.9	1,000	2,000	1,000	1,500
2P/3T	2.6	2.0	2.2	1,000	3,400	1,700	2,600
2.5P	3.0	2.4	2.6	1,000	4,200	2,100	3,100
3P*	3.6	2.9	2.9	1,000	4,200	2,100	3,100
3P/4T	3.7	3.1	3.0	1,000	4,200	2,100	3,100
4P*	4.6	4.0**	3.7	600	4,800	2,400	3,700
4P/5T	4.7	4.1	3.8	600	4,800	2,400	3,700
5P/6T	5.6	5.0	4.5	400	5,600	2,800	4,200

Size (in.)	Open Area - sq. in./ft. of Screen							Collapse Strength[5] - PSI						
	Screen Slot Size (thousandths of an in.)							Screen Slot Size (thousandths of an in.)						
	7	10	12	20	30	40	50	7	10	12	20	30	40	50
1.25	6.9	9.4	10.9	16.4	21.9	26.2	29.8	5,901	5,648	5,491	4,942	4,393	3,954	3,594
2P*	9.7	13.3	15.5	23.3	31.0	37.2	42.3	2,094	2,004	1,948	1,754	1,559	1,403	1,275
2P/3T	10.1	13.8	16.1	24.1	32.2	38.6	43.9	1,883	1,802	1,752	1,577	1,402	1,262	1,147
2.5P	11.9	16.2	18.9	28.4	37.8	45.4	51.6	1,164	1,114	1,083	975	867	780	709
3P*	14.0	19.1	22.3	33.5	44.6	53.5	60.8	713	682	663	597	531	478	434
3P/4T	14.5	19.9	23.2	34.8	46.4	55.6	63.2	635	608	591	532	473	426	387
4P*	17.9	24.5	28.6	42.9	57.2	68.6	78.0	340	326	317	285	253	228	207
4P/5T	18.6	25.4	29.6	44.4	59.2	71.0	80.7	307	294	286	257	229	206	187
5P/6T	22.1	30.2	35.2	52.9	70.5	84.6	96.1	182	174	170	153	136	122	111

*** Alternate constructions for water well and environmental**
**** ID confirmed clear for environmental with Sch. 40 fittings only (Sch. 80 is smaller)**

1. Weight is based on 10 slot construction, no fittings
2. Tensile and column strengths include a 30 percent safety factor
3. Recommended hang weight is 50 percent of calculated tensile strength
4. Column strength is based on 5 ft. screen barrel length
5. Calculated collapse values - no safety factor included

Notes:

- Transmitting capacity (gpm/ft. of screen) = open area x 0.31 @ 0.1 ft./sec
- P - pipe size, T - telescope

Water Well and Environmental Screens 90 Wire Construction 304 and 316

Size (in.)	OD: (in.)	ID: (in.)	Screen Weight[1] (lbs/ft.)	Max Depth (ft.)	Tensile Strength[2] (lbs.)	Recom. Hang Weight[3] (lbs.)	Column Strength[4] (lbs.)
1.25	1.7	1.1	1.5	600	4,200	2,100	3,100
2P*	2.4	1.99**	1.5	600	2,000	1,000	1,500
2P/3T	2.5	2.0	1.7	600	3,400	1,700	2,600
2.5P	3.0	2.4	2.1	600	4,200	2,100	3,100
3P*	3.5	2.9	2.3	600	4,200	2,100	3,100
3P/4T	3.7	3.1	2.4	600	4,200	2,100	3,100
4P*	4.5	4.0**	2.9	250	4,800	2,400	3,700
4P/5T	4.7	4.1	3.0	250	4,800	2,400	3,700
5P/6T	5.6	5.0	3.5	100	5,600	2,800	4,200

Size (in.)	Open Area - sq in./ft. of Screen							Collapse Strength[5] - PSI						
	Screen Slot Size (thousandths of an in.)							Screen Slot Size (thousandths of an in.)						
	7	10	12	20	30	40	50	7	10	12	20	30	40	50
1.25	4.6	6.4	7.6	11.7	16.1	19.8	22.1	2,343	2,272	2,227	2,063	1,890	1,743	1,618
2P*	6.6	9.2	10.8	16.7	22.9	28.2	32.7	817	792	776	719	659	608	564
2P/3T	6.9	9.6	11.2	17.4	23.9	29.3	34.0	724	702	688	637	585	538	500
2.5P	8.1	11.3	13.3	20.5	28.1	34.6	40.1	443	429	421	390	357	330	306
3P*	9.6	13.3	15.7	24.2	33.3	40.9	47.5	269	261	255	237	217	200	186
3P/4T	10.0	13.9	16.3	25.2	34.6	42.6	49.4	239	232	227	211	193	178	165
4P*	12.4	17.1	20.2	31.1	42.8	52.6	61.0	127	123	121	112	102	94	88
4P/5T	12.8	17.7	20.9	32.2	44.3	54.5	63.2	114	111	109	101	92	85	79
5P/6T	15.3	21.2	24.9	38.5	52.8	65.0	75.4	67	65	64	59	54	50	47

*** Alternate constructions for water well and environmental**
**** ID confirmed clear for environmental with Sch. 40 fittings only (Sch. 80 is smaller)**

1. Weight is based on 10 slot construction, no fittings
2. Tensile and column strengths include a 30 percent safety factor
3. Recommended hang weight is 50 percent of calculated tensile strength
4. Column strength is based on 5 ft. screen barrel length
5. Calculated collapse values - no safety factor included

Notes:

- Transmitting capacity (gpm/ft. of screen) = open area x 0.31 @ 0.1 ft./sec
- P - pipe size, T - telescope

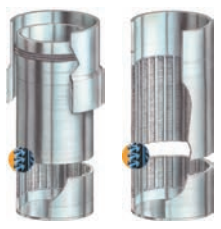
Large Diameter Free-Flow Screens: Sizes 6P - 16T

Size (in.)	Max Depth (ft.)	OD: (in.)	ID (in.)	Weight[1] (lbs./ft.)	Recom. Hang Weight[2] (lbs.)	Collapse Strength[1] (PSI)	Intake Area[3] - sq. in./ft. of Screen							
							Screen Slot Size (thousandths of an in.)							
							10	20	30	40	50	60	80	100
6P	100	6.6	6.1	4.5	4,315	83	36	62	83	100	113	124	142	156
	250	6.7	6.1	4.8	4,315	187	20	37	52	65	76	86	103	117
	600	6.7	5.9	6.0	8,813	185	20	37	52	65	76	86	103	117
	1,000	6.8	5.9	9.0	10,987	681	16	30	43	54	64	73	89	102
	1,600	6.9	5.9	14.2	16,498	870	16	30	43	55	65	74	90	104
8T	250	7.6	6.8	7.1	11,016	130	23	45	59	73	86	97	116	132
	600	7.6	6.8	6.1	10,404	487	18	34	48	60	72	82	100	115
	1,000	7.6	6.7	10.5	13,734	485	18	34	48	60	72	82	100	115
	1,600	7.7	6.7	16.6	20,622	622	18	34	48	61	72	83	101	116
8P	250	8.7	7.9	8.0	12,118	84	26	48	67	84	98	111	133	151
	600	8.7	7.9	10.0	11,444	323	21	39	55	69	82	94	114	131
	1,000	8.8	7.9	11.9	15,107	315	21	39	55	70	83	95	115	133
	1,600	8.9	7.9	18.8	22,684	406	21	39	56	70	84	96	116	134
10T	250	9.5	8.7	9.0	14,321	65	28	53	74	92	108	122	146	166
	1,000	9.5	8.6	11.2	13,525	250	22	42	60	75	89	102	125	143
	1,600	9.6	8.6	21.1	26,809	317	23	43	61	76	91	104	126	145
10P	600	10.7	9.9	12.5	14,566	173	25	48	68	85	101	116	141	162
	1,000	10.8	9.9	20.1	19,228	227	25	48	68	86	102	116	141	163
	1,600	11.0	9.9	28.3	28,871	523	27	51	72	91	108	123	149	171
12T	600	11.3	10.4	13.5	16,646	149	27	50	71	90	107	122	148	170
	1,000	11.5	10.4	26.8	21,974	463	28	53	75	95	112	128	156	179
	1,600	11.5	10.4	30.5	32,995	453	29	54	76	96	113	129	157	180
12P	250	12.7	11.8	14.7	16,646	104	30	57	80	101	120	137	167	192
	600	12.7	11.8	16.2	16,646	138	30	57	80	101	120	137	167	192
	1,000	12.9	11.8	29.2	21,974	325	32	60	85	107	127	144	175	201
	1,600	13.0	11.8	33.0	32,995	319	32	60	85	108	127	145	176	202
14T	250	12.5	11.6	13.6	13,525	111	29	55	78	99	117	134	163	188
	600	12.5	11.6	19.6	13,525	147	29	55	78	99	117	134	163	188
	1,000	12.6	11.5	27.4	17,854	347	31	59	83	105	124	141	171	197
	1,600	12.7	11.5	30.5	26,809	341	31	59	84	105	125	142	173	198
14P/16T	250	14.0	13.0	15.5	16,126	79	33	62	88	111	132	151	183	211
	600	14.1	13.0	28.5	16,126	249	35	66	93	117	138	158	192	220
	1,000	14.1	12.9	31.1	21,288	248	35	66	93	117	139	158	192	220
	1,600	14.3	12.9	38.6	31,964	356	38	72	101	126	149	170	205	234

Notes:

1. Based on 0.030 in. slot size (collapse values contain no safety factor)
2. Recommended hang weight is 50 percent of the calculated tensile strength
3. Transmitting capacity in gpm./ft. of screen = open area x 0.31 @ 0.1 ft./sec.

- Screens are available in up to 40 ft. lengths of continuously wrapped screen with no mid-weld
- Technical information is available upon request for 316 stainless steel screens
- P - pipe size, T - telescope
- For application depths > 1,600 ft., contact Technical Support



Telescope size screens install through the casing and usually have a Figure K packer as the upper fitting. Pipe size screens (right) usually have weld rings at each end and attach directly to the casing.