Johnson screens™

A Weatherford Company

THE WORLD'S BEST DESIGNED WATER WELLS USE JOHNSON SCREENS

WHEN PERFORMANCE IS IMPORTANT – THERE IS NO EQUAL.

To get the best, most cost-effective water well, specify a continuous slot Johnson well screen. We are the largest manufacturer of premium water well screens.

Why Is A Johnson Screen Better?

Better Well Development
Johnson screens have very high open area. This allows better access to the entire formation around the screen. Fines and drilling fluid are removed quickly and completely resulting in better well development.

Lower Pumping Costs
The high open area of Johnson screens allows water to enter the well freely resulting in minimal drawdown and less energy expended by the pump.

Less Maintenance
The continuous slot design of Johnson well screens allows lower entrance velocity of the water which reduces encrustation rates. The slot design also resists plugging and prevents sand from damaging pumps.

Successful Screens Follow Careful Design
1. We analyze your formation sand to correctly size the screen.
2. We select a grade of steel with the right level of corrosion resistance.
3. Noting the depth of your well, we choose the wire and rod combination that produces a screen with all the necessary strength characteristics.
4. Screen design is determined by aquifer characteristics and desired yield.
5. We supply all the fittings appropriate to your method of installation.

THE INDUSTRY'S BEST PRODUCT LINE GETS THE INDUSTRY'S BEST SUPPORT

We do more than make the world's best well screens. We also supply you with technical support that's like having your own in-house engineering team with no overhead. Whether you need sand analysis of your formation materials, screen size recommendation, screen installation suggestions or want to discuss any aspect of well construction, contact us.

Our support staff includes design engineers, welders, technical support personnel and sales engineers who have been on the shop floor, taught in classrooms and technical seminars, set and pulled screens and run pumping tests. We speak your language, understand your problems, and are here to help.

WATER WELL SCREENS

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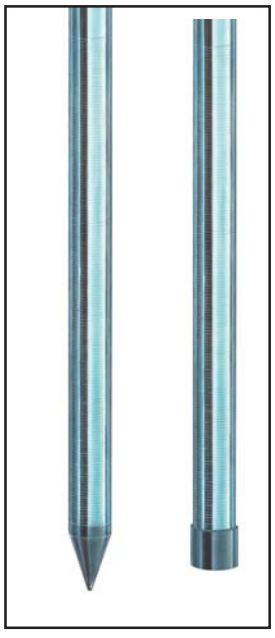
WATER WELL DRIVE POINTS

W60 Models - 304 and 316 Stainless Steel													
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs (1)	Column Strength lbs (2)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (3) Screen Slot Size in thousandths of an inch					
								6	10	12	15	20	30
1-1/4	1.7	1.0	0.060	2.0	1000	5,500	5,898	5.8 *6,155*	9.1 *5,804*	10.6 *5,642*	12.7 *5,417*	15.9 *5,078*	21.2 *4,514*
2P	2.4	1.7	0.060	2.7	1000	7,200	8,793	8.2 *2,349*	12.8 *2,215*	15.0 *2,153*	17.9 *2,067*	22.4 *1,938*	29.9 *1,722*
2P Sand Point	2.6	2.0	0.060	2.5	1000	4,900	4,239	8.9 *1,825*	14 *1,721*	16.3 *1,673*	19.6 *1,606*	24.5 *1,506*	32.6 *1,338*
4P-All Drive	4.7	4.0	0.060	5.6	600	16,300	21,486	16.0 *318*	25.2 *300*	29.4 *291*	35.3 *280*	44.1 *262*	58.8 *233*
4P-Double Drive	4.8	4.0	0.089	7.0	1000	16,300	21,486	11.3 *835*	18.1 *801*	21.3 *785*	25.9 *763*	32.9 *728*	45.2 *667*

W90 Models - 304 and 316 Stainless Steel													
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength fbs (1)	Column Strength fbs (2)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (3) Screen Slot Size in thousandths of an inch					
								6	10	12	15	20	30
1-1/4P	1.7	1.0	0.089	1.7	600	6,600	7,000	4.0 *2,496*	6.4 *2,396*	7.6 *2,348*	9.2 *2,280*	11.7 *2,176*	16.1 *1,993*
2P	2.4	1.7	0.089	2.3	600	7,200	8,700	5.7 *857*	9.1 *822*	10.7 *806*	12.9 *782*	16.5 *747*	22.6 *684*
2P-Sand Point	2.5	2.0	0.089	2.0	600	4,900	4,200	5.9 *743*	9.5 *713*	11.1 *699*	13.5 *679*	17.2 *648*	23.7 *593*
4P-All Drive	4.6	4.0	0.089	4.8	250	16,300	21,400	11.0 *118*	17.6 *113*	20.7 *111*	25.2 *108*	32.0 *103*	44.0 *94*

*Weight based on 10-slot construction (no fittings)
(1) Tensile & Column Strength includes 30% safety factor.
(2) Column strength is based on 5-ft screen barrel length.
(3) Calculated collapse values - No safety factor
Transmitting Capacity in gpm/ft-screen = Open Area x 0.31
(assumes entrance velocity = 0.1 ft/sec.)
P - Pipe Size
T - Telescope Size

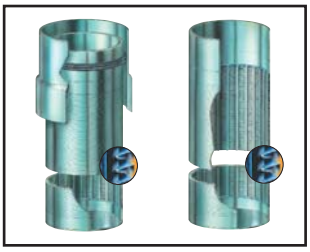


SMALL DIAMETER FREE-FLOW™ WELL SCREENS

Waterwell and Environmental - W60 Construction - 304 and 316 Stainless Steel															
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs (1)	Recom. Hang Wt. lbs (2)	Column Strength lbs (3)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (4) Screen Slot Size in thousandths of an inch						
									7	10	12	20	30	40	50
1-1/4	1.7	1.1	0.060	1.8	1000	4200	2100	3100	6.9 *5,901*	9.4 *5,648*	10.9 *5,491*	16.4 *4,942*	21.9 *4,393*	26.2 *3,954*	29.8 *3,594*
2P **	2.5	1.9	0.060	1.9	1000	2000	1000	1500	9.7 *2,094*	13.3 *2,004*	15.5 *1,948*	23.3 *1,754*	31.0 *1,559*	37.2 *1,403*	42.3 *1,275*
2P/3T	2.6	2.0	0.060	2.2	1000	3400	1700	2600	10.1 *1,883*	13.8 *1,802*	16.1 *1,752*	24.1 *1,577*	32.2 *1,402*	38.6 *1,262*	43.9 *1,147*
2.5P	3.0	2.4	0.060	2.6	1000	4200	2100	3100	11.9 *1,164*	16.2 *1,114*	18.9 *1,083*	28.4 *975*	37.8 *867*	45.4 *780*	51.6 *709*
3P **	3.6	2.9	0.060	2.9	1000	4200	2100	3100	14.0 *713*	19.1 *682*	22.3 *663*	33.5 *597*	44.6 *531*	53.5 *478*	60.8 *434*
3P/4T	3.7	3.1	0.060	3.0	1000	4200	2100	3100	14.5 *635*	19.9 *608*	23.2 *591*	34.8 *532*	46.4 *473*	55.6 *426*	63.2 *387*
4P **	4.6	4.0	0.060	3.7	600	4800	2400	3700	17.9 *340*	24.5 *326*	28.6 *317*	42.9 *285*	57.2 *253*	68.6 *228*	78.0 *207*
4P/5T	4.7	4.1	0.060	3.8	600	4800	2400	3700	18.6 *307*	25.4 *294*	29.6 *286*	44.4 *257*	59.2 *229*	71.0 *206*	80.7 *187*
5P/6T	5.6	5.0	0.060	4.5	400	5600	2800	4200	22.1 *182*	30.2 *174*	35.2 *170*	52.9 *153*	70.5 *136*	84.6 *122*	96.1 *111*

Waterwell and Environmental - W90 Construction - 304 and 316 Stainless Steel															
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs (1)	Recom. Hang Wt. lbs(2)	Column Strength lbs (3)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (4) Screen Slot Size in thousandths of an inch						
									7	10	12	20	30	40	50
1-1/4	1.7	1.1	0.089	1.5	600	4200	2100	3100	4.6 *2,343*	6.4 *2,272*	7.6 *2,227*	11.7 *2,063*	16.1 *1,890*	19.8 *1,743*	22.9 *1,618*
2P **	2.4	1.9	0.089	1.5	600	2000	1000	1500	6.6 *817*	9.2 *792*	10.8 *776*	16.7 *719*	22.9 *659*	28.2 *608*	32.7 *564*
2P/3T	2.5	2.0	0.089	1.7	600	3400	1700	2600	6.9 *724*	9.6 *702*	11.2 *688*	17.4 *637*	23.9 *584*	29.3 *538*	34.0 *500*
2.5P	3.0	2.4	0.089	2.1	600	4200	2100	3100	8.1 *443*	11.3 *429*	13.3 *421*	20.5 *390*	28.1 *357*	34.6 *330*	40.1 *306*
3P **	3.5	2.9	0.089	2.3	600	4200	2100	3100	9.6 *269*	13.3 *261*	15.7 *255*	24.2 *237*	33.3 *217*	40.9 *200*	47.5 *186*
3P/4T	3.7	3.1	0.089	2.4	600	4200	2100	3100	10.0 *239*	13.9 *232*	16.3 *227*	25.2 *211*	34.6 *193*	42.6 *178*	49.4 *165*
4P **	4.5	4.0	0.089	2.9	250	4800	2400	3700	12.4 *127*	17.1 *123*	20.2 *121*	31.1 *112*	42.8 *102*	52.6 *94*	61.0 *88*
4P/5T	4.7	4.1	0.089	3.0	250	4800	2400	3700	12.8 *114*	17.7 *111*	20.9 *109*	32.2 *101*	44.3 *92*	54.5 *85*	63.2 *79*
5P/6T	5.6	5.0	0.089	3.5	100	5600	2800	4200	15.3 *67*	21.2 *65*	24.9 *64*	38.5 *59*	52.8 *54*	65.0 *50*	75.4 *47*

*Weight based on 10-slot construction (no fittings)
(1) Tensile and Column Strength includes 30% safety factor.
(2) Hang weight is 50% of calculated tensile strength.
(3) Column strength is based on 5-ft screen barrel length.
(4) Calculated collapse values - No safety factor.
Transmitting Capacity in gpm/ft-screen = Open Area x 0.31
(assumes entrance velocity = 0.1 ft/sec.)
**Alternate Construction for Environmental Applications
P - Pipe Size
T - Telescope



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

SMALL DIAMETER HICAP-G™ WELL SCREENS (GLCS)

Waterwell and Environmental - Heavy - 1000 Foot Construction - Galvanized Low Carbon Steel													
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs	Recom. Hang Wt. lbs(2)	Column Strength lbs (1)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (3) Screen Slot Size in thousandths of an inch					
									7	12	20	30	40	50
1-1/4P	1.8	1.0	0.089	2.4	1500	4800	2400	5500	4.9 *15,298*	8.1 *14,540*	12.5 *13,473*	17.1 *12,341*	21.1 *11,384*	24.5 *10,565*
2P/3T	2.7	2.0	0.089	3.0	1500	4000	2000	5100	7.3 *4,746*	11.8 *4,511*	18.3 *4,180*	25.1 *3,829*	30.9 *3,532*	35.8 *3,278*
3P/4T	3.8	3.0	0.089	4.2	1500	4800	2400	6400	10.3 *1,679*	16.8 *1,596*	25.9 *1,478*	35.6 *1,354*	43.8 *1,249*	50.9 *1,159*
4P/5T	4.8	4.0	0.089	5.2	1000	5800	2900	7700	13.1 *821*	21.4 *781*	33.0 *723*	45.3 *663*	55.8 *611*	64.7 *567*
5P/6T	5.7	4.8	0.089	6.2	1000	6600	3300	8900	15.6 *517*	25.4 *491*	39.2 *455*	53.9 *417*	66.3 *384*	76.9 *357*

*Weight based on 10-slot construction (no fittings)
(1) Tensile & Column Strength includes 30% safety factor.
(2) Hang Weight is 50% of Calculated Tensile Strength
(3) Calculated collapse values - No safety factor
Transmitting Capacity in gpm/ft-screen = Open Area x 0.31
(assumes entrance velocity = 0.1 ft/sec.)
P - Pipe Size
T - Telescope Size

Finishing a Screen

SMALL DIAMETER HICAP™ WELL SCREENS (LOW CARBON STEEL)

Waterwell and Environmental - Standard - Low Carbon Steel														
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs	Recom. Hang Wt. lbs(2)	Column Strength lbs (1)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (3) Screen Slot Size in thousandths of an inch					
									7	12	20	30	40	50
1-1/4P	1.7	1.0	0.060	1.5	1000	3000	1500	2900	6.5 *7,146*	10.4 *6,650*	15.7 *5,985*	20.9 *5,320*	25.1 *4,788*	28.5 *4,353*
2P/3T	2.6	2.0	0.060	2.2	1000	5000	2500	5100	10.2 *1,902*	16.3 *1,770*	24.5 *1,593*	32.7 *1,416*	39.2 *1,274*	44.6 *1,158*
3P/4T	3.7	3.0	0.060	3.3	1000	6000	3000	6400	14.7 *645*	23.5 *601*	35.2 *641*	47.0 *481*	56.4 *432*	64.1 *393*
4P/5T	4.7	4.0	0.060	3.8	600	7000	3500	7700	18.7 *319*	29.8 *297*	44.7 *267*	59.6 *237*	71.5 *213*	81.2 *194*
5P/6T	5.6	4.9	0.060	4.5	250	8000	4000	8900	22.2 *191*	35.4 *177*	53.1 *160*	70.7 *142*	84.9 *128*	96.5 *116*

Waterwell and Environmental - Heavy - 1000 Foot Construction - Low Carbon Steel														
Size	OD in	Clear ID in	Wire Width in	Screen Wt/Ft* lbs	Max Depth ft	Tensile Strength lbs	Recom. Hang Wt. lbs(2)	Column Strength lbs (1)	Open Area - sq.in. / ft-screen Collapse Strength - PSI (3) Screen Slot Size in thousandths of an inch					
									7	12	20	30	40	50
1-1/4P	1.7	1.0	0.089	2.4	1500	4800	2400	5500	4.9 *15,298*	8.1 *14,540*	12.5 *13,473*	17.1 *12,341*	21.1 *11,384*	24.5 *10,565*
2P/3T	2.7	2.0	0.089	3.0	1500	4800	2000	5100	7.3 *4,746*	11.8 *4,511*	18.3 *4,180*	25.1 *3,829*	30.9 *3,532*	35.8 *3,278*
3P/4T	3.8	3.0	0.089	4.2	1500	4800	2400	6400	10.3 *1,679*	16.8 *1,596*	25.9 *1,478*	35.6 *1,354*	43.8 *1,249*	50.9 *1,159*
4P/5T	4.8	4.0	0.089	5.2	1000	5800	2900	7700	13.1 *821*	21.4 *781*	33.0 *723*	45.3 *663*	55.8 *611*	64.7 *567*
5P/6T	5.7	4.8	0.089	6.2	1000	6600	3300	8900	15.6 *517*	25.4 *491*	39.2 *455*	53.9 *417*	66.3 *384*	76.9 *357*

*Weight based on 10-slot construction (no fittings)
(1) Column strength is based on 5-ft screen barrel length.
(2) Hang Weight is 50% of Calculated Tensile Strength.
(3) Calculated collapse values - No safety factor
Transmitting Capacity in gpm/ft-screen = Open Area x 0.31
(assumes entrance velocity = 0.1 ft/sec.)
P - Pipe Size
T - Telescope Size

FREE-FLOW™ 304 STAINLESS STEEL SCREEN

Large Diameter FREE FLOW™

Size	Max Depth Ft	OD in	ID in	Weight lbs/ft (1)	Recom. Hang Wt (2)	Collapse PSI (1)	Intake Area (3) - sq. in. / ft-screen									
							Screen slot size in thousandths of an inch									
							10	15	20	25	30	40	50	60	80	100
6" P	100	6.7	6.0	4.4	4300	82	36	50	63	74	84	100	114	125	143	157
	250	6.7	6.0	4.8	4300	185	20	29	37	45	52	65	76	86	103	117
	600	6.7	5.9	6.0	8800	184	20	29	37	45	52	65	76	86	103	117
	1000	6.8	5.9	7.7	8800	683	16	23	30	36	43	54	64	73	89	102
8" T	250	7.6	6.8	7.0	11000	129	23	33	42	51	59	73	86	97	116	132
	1000	7.6	6.8	8.9	11000	480	18	26	34	41	48	61	72	82	100	115
8" P	250	8.7	7.9	7.9	12100	85	26	37	48	58	67	84	99	112	134	152
	1000	8.8	7.9	10.1	12100	319	21	30	39	47	55	69	82	94	115	132
10" T	250	9.5	8.7	8.9	14300	65	28	41	53	64	74	92	108	122	146	166
	1000	9.6	8.7	11.3	14300	244	23	33	42	52	60	76	90	103	125	144
10" P	600	10.8	9.9	12.6	15400	171	25	37	48	58	68	86	102	116	141	162
	1000	10.8	9.9	18.8	15400	479	26	37	48	58	68	86	102	117	142	163
12" T	600	11.3	10.4	13.6	17600	147	27	39	50	61	71	90	107	122	149	171
	1000	11.4	10.4	20.1	17600	413	27	39	51	61	72	90	107	123	149	172
12" P	250	12.8	11.9	14.7	17600	103	30	44	57	69	80	101	120	138	167	193
	600	12.8	11.9	22.0	17600	290	30	44	57	69	81	102	121	138	168	194
	1000	12.9	11.9	22.0	17600	290	29	42	55	66	78	98	117	134	163	188
14" T	250	12.5	11.6	14.4	14300	110	29	43	55	67	79	99	118	135	164	188
	600	12.6	11.6	20.8	14300	310	30	43	56	68	79	100	118	135	165	189
	1000	12.6	11.6	20.8	14300	310	28	41	53	65	76	96	114	131	160	184
14" P / 16"T	250	14.0	13.1	15.5	17000	78	33	48	62	75	88	111	132	151	184	211
	600	14.1	13.1	23.5	17000	222	33	48	62	76	88	112	133	151	184	212
	1000	14.1	13.1	23.5	17000	222	32	46	60	73	85	107	128	146	179	206
16" P / 18"T	100	16.1	15.1	17.8	19200	52	38	55	71	87	101	128	151	173	211	242
	250	16.1	15.1	25.5	19200	147	38	55	72	87	101	128	152	174	212	243
	600	16.2	15.1	26.9	19200	147	36	53	69	83	97	123	147	168	205	236
	1000	16.3	15.0	33.8	36000	147	40	59	76	92	107	135	160	183	222	254
18" P / 20" T	100	17.8	16.8	19.3	19800	38	42	61	79	96	112	141	168	192	234	269
	250	17.9	16.8	29.4	19800	109	40	59	76	92	108	136	162	186	227	262
	600	18.1	16.8	29.4	19800	109	45	65	84	102	119	150	177	202	245	281
	1000	18.1	16.7	36.5	37000	106	45	65	84	102	119	150	177	202	245	281
20" P	100	19.9	18.8	21.8	23100	27	47	68	88	107	125	158	187	214	261	300
	250	20.0	18.8	33.0	23100	78	47	68	88	107	125	158	188	215	261	301
	600	20.1	18.8	33.0	23100	78	50	73	94	114	132	167	198	225	273	314
	1000	20.1	18.8	41.3	43300	77	50	72	94	114	132	167	198	225	273	313
24" T	100	21.9	20.7	36.5	26400	59	52	75	97	118	137	174	206	236	287	330
	250	21.9	20.7	36.5	26400	59	49	72	93	113	132	167	199	227	278	320
	600	22.1	20.7	36.5	26400	59	55	79	103	124	145	183	217	247	300	344
	1000	22.2	20.7	66.6	49400	146	42	61	80	97	114	145	174	201	248	288
24" P / 26"T	100	24.1	22.8	38.3	22000	45	54	79	102	124	145	184	218	250	305	352
	250	24.3	22.8	38.3	22000	45	60	87	113	137	159	201	238	272	329	378
	1000	24.4	22.8	68.9	41200	110	46	67	87	107	125	160	191	220	272	317
26" P	100	25.7	24.4	40.8	23600	37	58	84	109	132	155	196	233	267	326	375
	250	25.8	24.4	40.8	23600	37	64	93	120	146	170	214	254	289	351	402
	1000	26.0	24.4	73.5	44300	91	49	72	93	114	134	170	204	235	290	338
30" T	100	27.1	25.7	42.6	23600	32	61	88	115	139	163	206	245	281	343	395
	250	27.2	25.7	42.6	23600	32	67	98	126	153	179	225	267	304	369	423
	1000	27.3	25.7	76.6	44300	78	52	75	98	120	140	179	215	247	305	355
30" P/ 36"T	100	29.6	28.3	47.1	27500	24	66	97	125	152	178	225	268	307	375	432
	250	29.7	28.3	47.1	27500	24	74	107	138	168	195	246	292	333	404	463
	1000	29.9	28.3	84.8	51500	60	56	82	107	131	154	196	235	270	334	388
36" P	100	35.7	34.3	68.8	31900	15	89	129	166	202	235	296	351	400	485	556
	600	35.9	34.3	101.1	59800	34	68	99	129	157	184	235	282	325	401	466

(1) Based on .030" Slot Size (Collapse values contain NO safety factor.)
(2) Recommended Hang Weight is 50% of the Calculated Tensile Strength
(3) Transmitting Capacity (GPM/ft) = Open area (sq.in/ft) x 0.31
Screens are available in up to 40-foot lengths of continuously wrapped screen with no mid-weld. 316 stainless steel technical information is available on request.
P- Pipe Size
T -Telescope Size

HI-FLOW ™ (HI-Q) – 304 STAINLESS STEEL SCREEN

Large Diameter HI-FLOW™																				
Size	Max Depth Ft	OD in	ID in	Weight lbs/ft (1)	Recom. Hang Wt lbs (2)	Collapse PSI (1)		Intake Area (3) - sq.in. / ft-screen												
								Screen slot size in thousandths of an inch												
								10	15	20	25	30	40	50	60	80	100
6" P	100	6.6	6.0	4.4	4300	82		36	50	63	74	83	100	114	125	143	156
	250	6.7	6.0	6.3	4300	242		25	36	46	55	64	78	91	102	119	133
	1000	6.7	5.9	7.5	8800	243		25	36	46	55	63	78	91	101	119	133
8" T	250	7.5	6.8	6.6	11000	57		40	57	71	83	94	113	129	141	162	177
	600	7.5	6.8	8.7	11000	170		29	41	52	62	72	88	102	114	134	150
	1000	7.6	6.8	10.4	11000	170		35	50	63	75	85	104	119	132	152	168
8" P	250	8.7	7.9	9.8	12100	112		33	47	60	71	82	101	117	131	154	172
	1000	8.8	7.9	11.8	12100	232		41	58	72	86	98	119	136	151	175	193
10" T	250	9.5	8.7	11.0	14300	86		36	51	65	78	90	111	128	144	169	189
	1000	9.6	8.7	13.1	14300	177		45	63	79	94	107	130	149	165	191	211
10" P	250	10.8	9.9	14.6	15400	124		50	71	89	106	121	146	168	186	215	238
	1000	11.0	9.9	21.2	15400	336		29	43	55	67	77	97	115	130	157	179
12" T	250	11.3	10.4	15.7	17600	107		53	75	94	111	127	154	177	196	226	250
	1000	11.5	10.4	22.7	17600	289		31	45	58	70	81	102	120	137	165	189
12" P	250	12.8	11.8	17.2	17600	75		59	84	106	125	143	174	199	221	255	282
	1000	13.0	11.8	24.9	17600	204		35	50	65	79	91	115	136	154	186	212
14" T	250	12.5	11.6	16.0	14300	80		58	82	104	123	140	170	195	216	250	275
	1000	12.7	11.6	23.6	14300	217		34	49	64	77	90	112	133	151	182	208
4" P / 16"T	250	14.0	13.1	18.2	17000	57		65	92	116	137	157	190	218	242	279	308
	1000	14.2	13.1	26.7	17000	155		38	55	71	86	100	126	148	169	204	232
16" P / 18"T	100	16.1	15.1	20.8	19200	37		75	106	133	158	180	218	250	278	321	354
	600	16.3	15.1	30.5	19200	103		44	63	82	99	115	144	170	193	233	266
	1000	16.3	15.0	39.4	36000	162		40	59	76	92	107	135	160	183	222	254
18" P / 20"T	600	18.0	16.8	33.4	19800	76		48	70	90	109	127	159	188	214	258	295
	1000	18.1	16.7	42.7	37100	120		45	65	84	102	119	150	177	202	245	281
20" P	250	20.1	18.8	37.5	23100	55		54	78	101	122	142	178	210	239	288	329
	600	20.1	18.8	40.1	23100	86		50	73	94	114	132	167	198	225	273	314
	1000	20.2	18.7	53.6	43300	126		54	79	101	123	143	179	211	240	290	331
24" T	250	22.0	20.7	41.4	26400	42		59	86	110	134	155	195	230	262	316	360
	600	22.1	20.7	44.2	26400	66		55	79	103	124	145	183	217	247	300	344
	1000	22.2	20.6	66.6	49400	146		42	61	80	97	114	145	174	201	248	288
24" P / 26"T	100	24.2	22.8	43.7	22000	31		65	94	121	147	171	214	253	288	347	396
	250	24.3	22.8	46.8	22000	49		60	87	113	137	159	201	238	272	329	378
	1000	24.4	22.8	68.9	41200	110		46	67	87	107	125	160	191	220	272	317
26" P	100	25.8	24.4	46.6	23600	26		69	100	129	157	182	228	270	307	370	422
	250	25.8	24.4	49.9	23600	41		64	93	120	146	170	214	254	289	351	402
	1000	26.0	24.4	73.5	44300	91		49	72	93	114	134	170	204	235	290	338
30" T	100	27.1	25.7	48.7	23600	22		73	106	136	165	192	240	284	323	389	444
	250	27.2	25.7	52.2	23600	35		67	98	126	153	179	225	267	304	369	423
	1000	27.3	25.7	76.6	44300	78		52	75	98	120	140	179	215	247	305	355
30" P / 36"T	100	29.7	28.3	53.7	27500	17		80	116	149	180	210	263	310	353	426	486
	250	29.7	28.3	57.5	27500	27		74	107	138	168	195	246	292	333	404	463
	1000	29.9	28.3	84.8	51500	60		56	82	107	131	154	196	235	270	334	388
36" P	100	35.7	34.3	68.8	31900	15		89	129	166	202	235	296	351	400	485	556
	250	35.9	34.3	89.5	59800	23		97	140	180	218	253	318	375	427	515	588
	600	35.9	34.3	101.1	59800	34		68	99	129	157	184	235	282	325	401	466

(1) Based on .030" Slot Size. (Collapse values contain no safety factor)
(2) Recommended Hang Weight is 50% of the Calculated Tensile Strength.
(3) Transmitting Capacity (GPM/ ft) = Open area (sq.in/ft) x 0.31
316 stainless steel screen technical information is available on request.
Screens available in 40' lengths of continuously wrapped screen with no mid-weld.
P - Pipe Size
T - Telescope Size

HICAP-G™ LOW CARBON STEEL GALVANIZED SCREENS

Large Diameter HICAP-G™																					
Size	Max Depth Ft	OD in	ID in	Weight lbs / ft (1)	Recom. Hang Wt lbs / (2)	Collapse PSI (1)		Open Area (3) - sq.in. / ft-screen													
								Screen slot size in thousandths of an inch													
								10	15	20	25	30	40	50	60	80	100				
6" P	250	6.6	6.0	5.0	5000	125		28	39	50	59	68	83	96	107	125	139				
	1000	6.7	5.9	7.9	9600	256		25	36	46	55	64	78	91	102	119	133				
8" T	600	7.5	6.7	9.2	12000	179		29	41	52	62	72	88	102	114	134	150				
	1000	7.7	6.7	16.6	24000	519		20	28	37	44	52	65	77	88	106	122				
8" P	250	8.7	7.8	10.4	13200	118		33	47	60	72	82	101	117	131	154	173				
	600	8.7	7.8	14.9	13200	359		22	32	41	50	58	73	87	99	120	137				
	1000	8.9	7.8	18.8	26400	341		23	33	42	51	60	75	89	101	123	140				
10" T	250	9.5	8.6	11.7	15600	90		36	52	66	79	90	111	129	144	169	189				
	600	9.6	8.6	16.6	15600	275		24	35	46	55	64	81	96	109	132	151				
	1000	9.7	8.6	21.1	31200	266		25	36	46	56	65	82	97	110	134	153				
10" P	100	10.7	9.8	13.0	16800	63		41	58	74	88	102	125	145	162	191	213				
	600	10.8	9.8	18.5	16800	193		27	40	51	62	72	91	108	123	149	170				
	1000	10.9	9.8	23.3	33600	186		28	40	52	63	73	92	109	124	150	172				
12" T	100	11.3	10.4	14.1	19200	54		43	61	78	93	107	132	153	171	202	225				
	600	11.3	10.4	19.9	19200	166		29	41	54	65	76	95	113	128	156	178				
	1000	11.5	10.3	25.4	38400	166		29	42	55	66	77	97	115	131	158	181				
12"P	100	12.7	11.8	15.2	19200	38		48	69	88	105	121	148	172	193	227	253				
	600	12.8	11.8	21.7	19200	116		32	47	61	74	86	108	128	145	176	202				
	1000	13.1	11.8	34.3	38400	321		25	37	48	59	69	88	105	121	149	173				
14" T	100	12.4	11.6	14.0	15600	40		47	67	86	102	118	145	168	188	221	247				
	600	12.5	11.6	20.3	15600	124		32	46	59	72	84	105	125	142	172	197				
	1000	12.8	11.5	31.7	31200	342		25	36	47	57	67	86	103	118	146	169				
14" P/16" T	250	14.0	13.0	23.1	18600	88		35	51	66	80	94	118	140	159	193	221				
	600	14.1	13.0	30.6	18600	253		27	40	52	63	74	94	113	130	160	186				
	1000	14.3	12.9	36.1	37200	246		28	40	53	64	75	96	115	132	163	189				
16" P/18" T	100	16.0	15.0	26.4	21000	58		40	59	76	92	107	135	159	182	220	252				
	600	16.2	15.0	35.1	21000	168		31	46	60	73	85	109	130	149	184	214				
	1000	16.2	14.8	40.9	42100	169		31	46	60	73	85	109	130	149	184	214				
18" P/20" T	100	17.8	16.7	28.8	21600	43		45	65	84	102	119	150	177	202	245	281				
	600	18.0	16.7	38.4	21600	124		35	51	66	81	95	121	144	166	205	238				
	1000	18.1	16.7	44.7	43300	121		35	51	67	81	95	121	145	167	206	239				
20" P	100	20.0	18.7	32.5	25300	31		51	73	95	115	134	168	199	227	275	315				
	600	20.2	18.7	43.1	25300	89		39	57	74	91	106	135	162	186	230	267				
24" T	100	21.8	20.7	35.9	28900	23		55	80	103	125	146	184	217	248	300	344				
	600	22.0	20.7	47.6	28900	68		43	62	81	99	116	147	176	203	250	291				
24" P/26" T	250	24.1	22.8	50.1	24100	51		47	68	89	108	127	161	193	222	274	319				
26" P 30" T	250	25.9	24.4	61.0	51700	41		50	73	95	116	136	173	208	239	295	342				
30" T	250	27.3	25.7	63.5	51700	35		53	77	100	122	144	183	219	252	311	361				
30" P/36" T	250	29.8	28.2	70.4	60100	27		58	84	110	134	157	200	239	275	339	394				

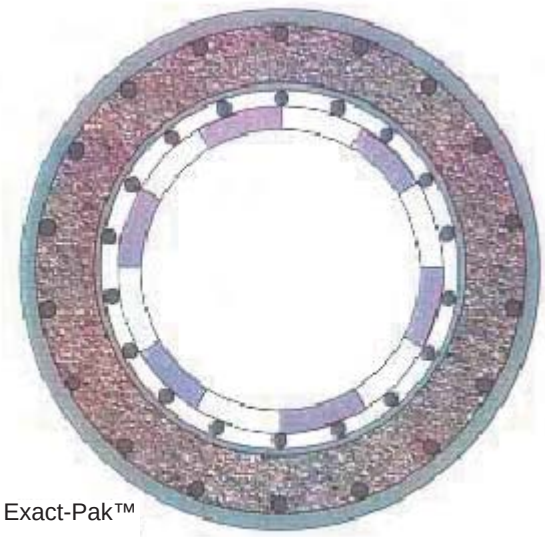
(1) Based on .030" Slot Size (Collapse values contain NO safety factor.)
(2) Recommended Hang Weight is 50% of the Calculated Tensile Strength.
(3) Transmitting Capacity (GPM/ft) = Open area (sq.in/ft) x 0.31
Screens are available in up to 40-foot lengths of continuously wrapped screen with no mid-weld.

HICAP™ LOW CARBON STEEL SCREENS

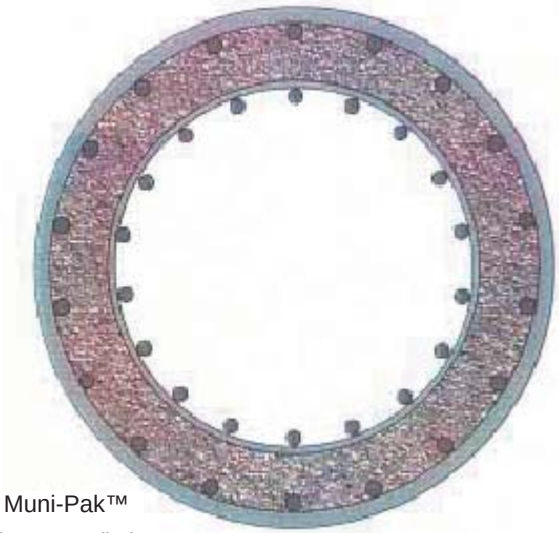
Large Diameter HICAP™																	
Size	Max Depth Ft	OD in	ID in	Weight lbs /ft (1)	Recom. Hang Wt lbs (2)	Collapse PSI (1)	Open Area (3) - sq.in. / ft-screen Screen slot size in thousandths of an inch									
							10	15	20	25	30	40	50	60	80	100
6" P	250	6.7	6.0	6.3	12900	246	25	36	46	55	64	78	91	102	119	133
	1000	6.8	5.9	12.2	14500	637	12	17	22	27	32	41	49	57	71	83
8" T	250	7.5	6.7	8.7	12900	179	29	41	52	62	71	88	102	114	134	150
	1000	7.6	6.7	14.3	18100	451	13	19	25	30	36	46	55	64	79	92
8" P	250	8.7	7.9	9.8	14100	118	33	47	60	71	82	101	117	131	154	172
	1000	8.8	7.9	16.2	20000	295	15	22	29	35	41	53	64	74	91	107
10" T	250	9.5	8.7	11.0	16700	90	36	52	66	79	90	111	129	144	169	189
	1000	9.5	8.6	18.1	23600	229	16	24	31	38	45	57	69	80	99	115
10" P	600	10.8	9.8	20.1	25400	160	18	27	35	43	51	65	78	90	112	131
	1000	10.9	9.9	24.3	25400	361	19	27	35	43	51	65	78	91	113	132
12" T	600	11.3	10.4	21.8	29000	138	19	28	37	45	53	68	82	95	117	137
	1000	11.4	10.4	26.1	29000	313	19	28	37	45	53	68	82	95	118	138
12" P	250	12.8	11.8	23.5	29000	96	22	32	42	51	60	77	93	107	133	156
	1000	12.9	11.1	28.4	29000	219	22	32	42	51	60	77	93	107	133	156
14" T	250	12.5	11.5	21.6	23600	103	21	31	41	50	59	75	91	105	130	152
	600	12.6	11.5	26.4	23600	234	21	31	41	50	59	75	91	105	130	152
	1000	12.7	11.5	29.4	23600	350	25	36	47	57	67	85	102	117	144	168
14" P/ 16"T	250	14.0	13.0	24.1	28100	73	24	35	46	56	66	84	101	117	145	170
	600	14.1	13.0	30.1	28100	167	24	35	46	56	66	84	101	117	146	170
	1000	14.2	13.0	33.3	28100	251	27	40	52	64	75	95	114	131	162	188
16" P/ 18"T	100	15.9	14.8	28.0	31700	50	27	40	52	64	75	96	115	133	165	193
	600	16.0	14.8	34.1	31700	114	27	40	52	64	75	96	115	133	165	193
	1000	16.1	14.8	37.8	31700	172	31	45	59	72	85	108	129	149	183	213
18" P/ 20" T	250	17.9	16.7	37.4	32600	82	30	45	58	71	84	107	129	149	185	216
	600	18.0	16.7	41.5	32600	123	35	51	66	81	95	121	144	166	205	238
	1000	18.1	16.7	46.1	32600	186	30	44	58	70	83	106	128	148	184	215
20" P	100	19.9	18.7	34.6	38100	25	34	50	65	80	94	120	144	167	207	242
	250	20.0	28.7	42.1	38100	59	34	50	65	79	93	120	144	166	206	242
	600	20.0	28.7	46.7	38100	89	39	57	74	90	105	134	160	185	228	264
	1000	20.2	18.7	51.8	38100	135	34	49	64	79	92	118	143	165	205	240
24" T	100	21.8	20.6	38.5	43500	19	37	55	71	87	103	131	158	183	227	265
	250	21.9	20.6	46.7	43500	44	37	55	71	87	102	131	157	182	226	264
	600	22.0	20.6	51.7	43500	67	43	62	81	99	116	147	176	203	250	291
	1000	22.1	20.6	57.3	43500	102	37	54	70	86	101	130	156	180	224	263
24" P/ 26"T	100	24.2	22.7	51.6	48100	33	41	60	79	96	113	145	174	201	250	292
	250	24.3	22.7	57.1	48100	50	47	69	89	109	128	163	195	224	276	321
	600	24.3	22.7	63.2	48100	77	40	59	77	95	111	143	172	199	247	289
	1000	24.4	22.7	74.5	48100	140	56	81	105	128	149	189	224	257	313	361
26" P	100	25.8	24.3	55.1	51700	27	44	64	84	103	121	154	186	214	266	312
	250	25.9	24.3	61.0	51700	41	50	73	95	116	136	173	208	239	295	342
	600	26.0	24.3	67.1	51700	63	43	63	83	101	119	152	183	212	264	309
	1000	26.0	24.3	79.6	51700	115	59	86	112	136	159	201	239	273	334	384
30" T	100	27.1	25.7	57.3	51700	23	46	67	88	108	127	162	195	225	280	327
	250	27.3	25.7	63.5	51700	35	53	77	100	122	143	183	218	251	310	360
	600	27.3	25.7	70.3	51700	54	45	67	87	106	125	160	193	223	277	324
	1000	27.4	25.7	83.0	51700	99	63	91	118	143	167	212	252	288	351	405
30" P/ 36"T	250	29.8	28.2	70.4	60100	27	58	84	110	134	157	200	239	275	339	394
	600	29.9	28.2	91.7	60100	76	68	99	129	156	183	231	275	314	384	442
36" P	100	35.8	34.2	83.9	69800	16	69	101	132	161	188	240	287	330	407	473
	250	35.9	34.2	92.8	69800	24	60	87	114	140	164	210	253	293	364	426
	600	35.9	34.2	109.4	69800	24	82	119	155	188	219	277	330	378	460	530

(1) Based on .030" Slot Size (Collapse values contain no safety factor.)
(2) Recommended Hang Weight is 50% of the Calculated Tensile Strength
(3) Transmitting Capacity (GPM/ft) = Open area (sq.in/ft) x 0.31.
Screens are available in up to 40-foot lengths of continuously wrapped screen with no mid-weld.
P - Pipe
T - Telescope

EXACT-PAK™ AND MUNI-PAK™ SCREENS



Exact-Pak™



Muni-Pak™

(Patent Pending)

Carbolite packed screens help minimize biofilm accumulation.

Large diameter water wells are frequently gravel-packed to provide downhole sand control. This function can now be accomplished with Johnson prepacked screens which have factory-installed pack material in the annulus between an outer screen and an inner screen. This design allows closer contact between the inside of the screen and the aquifer which can improve well development, efficiency, placement time and lower cost.

Exact-pak pipe-based screens and Muni-Pak rod-based screens provide the following features:

Uniformity

- Excellent sphericity and roundness of carbolite increases hydraulic conductivity adjacent to the well screen resulting in increased well efficiency and reduced pumping costs.

Consistent Fill

- Industrial vibrating systems used to pack these screens prevent internal filter media bridging and ensure an even, consistent fill and compaction

Special Lengths

- Muni-Pak screens are available in up to 40-foot lengths of continuously wrapped screen with no mid-weld

High Strength

- Exact-Pak screens are constructed on single or double-random-length perforated pipe for added strength

Custom Applications

- Multiple wire-size and filter-media options are available for customized applications

Lower Over All Cost

- Prepack design enables installation in smaller diameter boreholes, resulting in cost savings in drilling and cementing

Faster Completions

- The screens eliminate the need for gravel-handling or specialized equipment

EXACT-PAK™ AND MUNI-PAK™ SCREENS

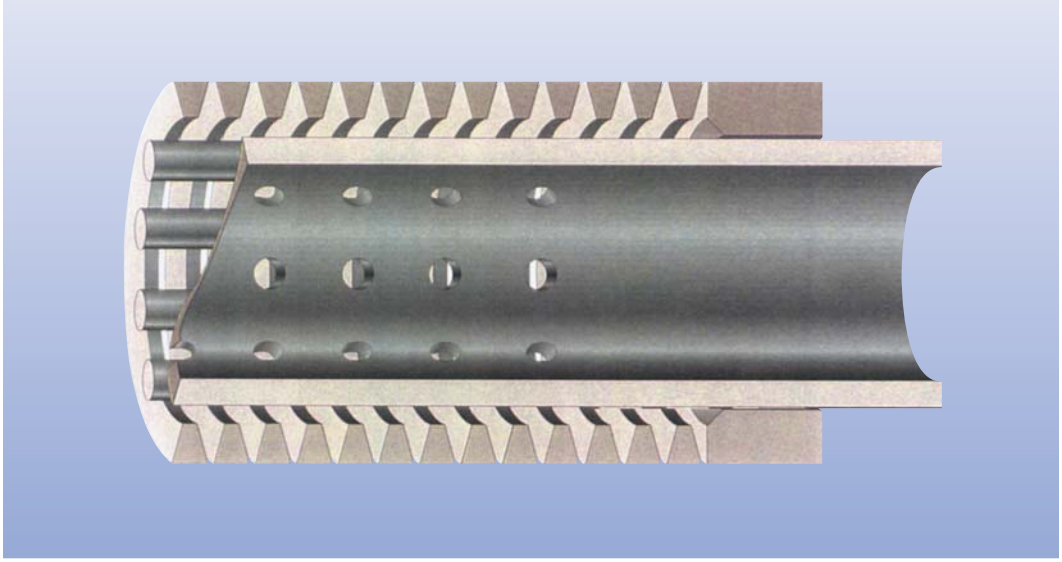
Exact-Pak™ Screens													
Size in	Pipe ID in	Holes per Foot	Hole Size in	Open Are of Holes in²/ft	Approx Screen OD in	Media Annular Thickness in	Inner Screen Open Area in²/ft			Outer Screen Open Area in²/ft			Approx Screen Weight lbs/ft
							Screen Slot size in thousandths of an inch			Screen Slot size in thousandths of an inch			
							10	25	50	10	25	50	
2 x 4	2.0	84	0.375	9.28	4.5	0.776	12	25	41	21	45	72	21
3 x 5	3.0	108	0.375	11.93	5.7	0.781	16	35	57	27	56	89	31
4 x 6	4.0	168	0.5	32.97	6.7	0.774	21	44	71	25	55	91	36
5 x 7	5.0	180	0.5	35.33	7.7	0.774	23	49	79	28	60	98	42
6 x 8	6.0	204	0.5	40.04	8.7	0.774	30	63	102	34	73	121	58
8 x 10	7.9	240	0.5	47.10	10.8	0.774	38	81	131	41	90	148	84
10 x 12	10.0	288	0.5	56.52	12.8	0.774	47	101	162	43	95	160	111
12 x 15	12.0	336	0.5	65.94	15.0	0.774	55	118	191	40	90	155	135
14 x 16	13.2	360	0.5	70.65	16.0	0.774	60	130	210	43	97	168	155
16 x 18	15.2	384	0.5	75.36	18.0	0.774	69	147	238	41	94	166	178
18 x 20	17.2	432	0.5	84.79	20.0	0.774	86	183	296	50	115	202	200

Muni-Pak™ Screens													
Size* in	Approx Screen ID in	Approx Screen OD in	Media Annular Thickness in	Inner Screen Open Area (in²/ft)					Outer Screen Open Area (in²/ft)					Approx Screen Weight lbs/ft
				Screen Slot Size in thousandths of an inch					Screen Slot Size in thousandths of an inch					
				10	20	30	40	50	10	20	30	40	50	
2 x 4	2.2	4.5	0.848	13	23	31	38	43	22	39	53	64	74	17
3 x 5	3.0	5.7	0.967	18	31	42	51	59	27	47	64	77	88	23
4 x 6	4.0	6.7	0.936	22	39	53	64	74	25	45	62	77	89	25
5 x 7	5.0	7.7	0.874	27	47	64	77	86	28	51	71	87	101	27
6 x 8	6.0	8.7	0.844	25	45	62	77	89	33	59	81	100	116	35
8 x 10	8.0	10.8	0.839	33	59	81	100	116	41	74	101	125	145	55
10 x 12	10.0	12.8	0.839	41	74	101	125	145	42	77	107	133	155	70
12 x 15	12.0	15.0	0.839	42	77	107	133	155	39	73	102	129	153	85
14 x 16	13.2	16.0	0.693	46	84	117	146	170	42	78	110	138	163	100
16 x 18	15.2	18.0	0.693	42	78	110	138	163	47	88	123	155	183	115
18 x 20	17.0	20.0	0.783	47	88	123	155	183	52	97	137	172	204	128

*Other sizes available on request.
Deep well construction Specifications available on request.

Muni-Pak™ Screens		
Size in	Collapse psi	Tensile lbs
2 x 4	16,506	18,800
3 x 5	5,652	21,400
4 x 6	2,830	25,700
5 x 7	1,552	28,300
6 x 8	990	33,200
8 x 10	1,165	67,500
10 x 12	634	81,600
12 x 15	886	127,900
14 x 16	1,116	127,900
16 x 18	765	135,400
18 x 20	544	143,000

JOHNSON® PIPE-BASED SCREENS



Pipe-based well screen combines the hydraulic efficiency of wire-wound screens with the great strength of pipe. Because of the strength of the pipe liner, the wrap wires can be smaller, which produces greater open area.

The longitudinal support rods on the screen jacket create channels which direct incoming flow to the nearest pipe perforation. Screen and pipe are welded to make a rugged, reliable unit suitable for deep vertical wells as well as horizontal remediation and supply wells.

Water Well - Pipe Based Stainless Steel										
Size in	Pipe OD in	Holes Per Foot	Hole Size in	Hole Open Area per foot in^2	Screen OD in	Open Area - sq.in. / ft. - screen Screen slot size in thousandths of an inch				
						10	20	40	60	100
1.5	1.900	72	0.375	7.9	2.4	7	14	23	30	39
2	2.375	84	0.375	9.3	2.9	9	17	29	37	48
2.5	2.875	96	0.375	10.6	3.4	11	21	35	45	59
3	3.500	108	0.375	11.9	4.0	14	25	42	55	71
4	4.500	144	0.5	28.3	5.0	18	32	54	70	92
5	5.563	180	0.5	35.3	6.1	22	40	67	87	113
6	6.625	204	0.5	40.0	7.1	26	48	80	103	135
7	7.000	192	0.5	37.7	7.5	28	50	84	109	143
7.625	7.625	216	0.5	42.4	8.1	30	55	92	119	155
8	8.625	240	0.5	47.1	9.1	34	62	104	135	176
9.625	9.625	252	0.5	49.5	10.1	38	69	116	150	196
10	10.750	288	0.5	56.5	11.3	43	77	130	168	219
12	12.750	336	0.5	65.9	13.3	51	92	154	199	260
14	14.000	360	0.5	70.7	14.5	56	101	169	218	285
16	16.000	384	0.5	75.4	16.5	63	115	193	250	326
18	18.000	432	0.5	84.8	18.5	71	129	217	281	367

CASINGS

304 Stainless Steel Casing					
Nom Diam	Sch	OD	ID	Wt per ft	Collapse PSI
1"PS	5	1.315	1.185	0.88	2445
	10		1.097	1.42	4795
	40		1.049	1.70	6122
1-1/4"PS	5	1.660	1.530	1.12	1362
	10		1.442	1.82	3271
	40		1.380	2.29	4736
1-1/2"PS	5	1.900	1.770	1.29	1074
	10		1.682	2.10	2704
	40		1.610	2.74	4177
2"PS	5	2.375	2.245	1.62	650
	10		2.157	2.66	1824
	40		2.067	3.69	3208
3"PS	5	3.500	3.334	3.06	468
	10		3.260	4.37	1050
	40		3.068	7.65	2972
4"PS	5	4.500	4.334	3.95	253
	10		4.260	5.67	614
	40		4.026	10.90	2303
5"PS	5	5.563	5.345	6.41	295
	10		2.295	7.84	486
	40		5.047	14.75	1854
6"PS	5	6.625	6.407	7.66	189
	10		6.357	9.38	319
	40		6.065	19.15	1570
8"PS	10	8.625	8.329	13.53	210
	40		7.981	28.82	1243
10"PS	10	10.75	10.420	18.83	157
	40		10.020	40.86	1030
12"PS	10	12.75	12.390	24.39	126
	40		12.000	50.03	762

Low Carbon Steel Casings					
Nom Diam	Sch	OD	ID	Wt per ft	Collapse PSI
1"PS	40	1.315	1.049	1.68	6127
1-1/4"PS	40	1.660	1.380	2.27	4743
1-1/2"PS	40	1.900	1.610	2.72	4185
2"PS	40	2.375	2.067	3.65	3219
3"PS	40	3.500	3.068	7.58	2983
4"PS	40	4.500	4.026	10.79	2316
5"PS	40	5.563	5.047	14.62	1869
6"PS	40	6.625	6.065	18.97	1585
8"PS	40	8.625	7.981	28.55	1259
10"PS	40	10.750	10.020	40.48	1045
12"PS	Std	12.750	12.000	49.56	776

FITTINGS

Fig. TF Washdown

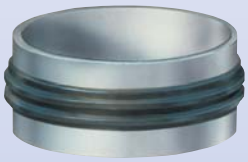


Fig. K

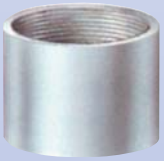
Wirelock Fittings

Centralizer

Shale Trap

LXR Nipples

Drive Point



LXR Coupling

Back Pressure Valves

Wash Plugs

Dielectric Coupling

Flush Thread

END FITTING OPTIONS

- **Flush Threads**
  - **Sch 40**
  - **Sch 80**
- **NPT Thread**
- **Weld Ring**
- **Plate Bottom**
- **Threaded Point**
- **Threaded Cap/Plug**
- **Locking Cap**
- **Beveled Ends**

Most well screen installations involve a few standard fitting combination. Telescope size screens, for example, typically use a Figure K packer on the screen top and a welded or threaded plate bottom. The plate usually has a welded bail attached to use when lowering the screen. Pipe size screens attach directly to the casing and usually have plate bottoms. A variety of other fittings such as centralizers, shale traps, washdown fittings and connecting fittings are stocked for quick delivery.

DIELECTRIC COUPLING

Use dielectric couplings whenever dissimilar metals occur in water well systems or where an electrically insulated connection is required.

AGRI-SCREEN™

Agri-Screen™ by Johnson. The quality of a "V" shaped continuous slot Johnson screen is available to provide an irrigation farmer or a dewatering contractor the highest open area possible together with a high-strength product, at a price close to punched or louvered pipe

- Agri-Screen™ is manufactured of low-carbon mild steel wire continuously wrapped around an array of support rods
- Agri-Screen™ is available in 8", 10", 12" and 16" pipe size diameter (8" I.D., 10" I.D., 12" I.D. & 16" O.D.)
- An optional O.D. collar is supplied on one end of the screen to provide easy welding of the product to other screens or pipe. It also serves as a quick adapter to plastic casing
- Under normal circumstances, Agri-Screen™ can be successfully installed in wells as deep as 800 ft. For deeper wells, Agri-Screen™ Plus is available in 12" and 16" pipe size diameters (1)
- Available in truck load quantities only

(1) For wells deeper than 1500 ft. consult Johnson

FORMAT FOR SPECIFYING JOHNSON® SCREENS

SCREENS

GENERAL: Well screens shall be of the continuous slot design to provide maximum open area to reduce entrance velocity, increase hydraulic efficiency and promote more effective development. The well screens shall be constructed of vee-shaped trapezoidal wire continuously wrapped around an array of equally spaced support rods of the same material. Each junction of wire/rod contact shall be resistance welded. The screens and end fittings shall be made of _____(material). The well screens shall be manufactured by Johnson Screens, a Weatherford Company or approved equal.

COLLAPSE STRENGTH: Well screens to be_____ inches in diameter, continuous slot wire-wrapped _____ (material), designed to withstand a minimum collapse pressure of _____ (psi) for a _____ (inch) slot opening. The surface wire shape shall cause the slot opening to widen inwardly to minimize clogging. Surface wrap-wire height shall be _____ (inch) to provide the desired collapse strength. The wrap-wire face width shall be of minimum dimension to provide _____ (%) open area at the anticipated _____ (inch) slot opening.

TENSILE STRENGTH: The minimum screen tensile strength must exceed at least twice the total weight of the screen and any standard wall blank casing suspended below the top screen joint. The tensile strength shall be a minimum of _____ pounds. (Tensile strength is total rod area times material yield strength).

SCREEN CONFIGURATION: Screens shall be manufactured in various lengths complete with _____ (material) weld rings attached to each end. The weld rings shall be standard available lengths as requested by the contractor and approved by the engineer.

MUNI-PAK™

GENERAL: Muni-Pak screens shall be of the continuous slot design to provide maximum open area to reduce entrance velocity, increase hydraulic efficiency and promote more effective development. Both the inner and outer screens shall be constructed of vee-shaped trapezoidal wire continuously wrapped around an array of equally spaced support rods of the same material. Each junction of wire/rod contact shall be resistance welded. The screens and end fittings shall be made of _____ (material). The well screens shall be manufactured by Johnson Screens, a Weatherford Company or approved equal.

DIAMETER: The Muni-Pak shall be _____ inch Pipe Size inner screen X _____ inch Pipe Size outer screen.

COLLAPSE: The screen shall be manufactured with a wrap wire designed to yield a minimum collapse pressure of _____ PSI at a design slot opening of _____ inch. The wire shape shall cause the slot opening to widen inwardly to minimize clogging.

OPEN AREA: The inner screen shall provide _____ sq.in. of inlet area per foot of screen at the design slot size. The outer screen shall be of the same slot as the inner screen. The slot size and filter pack are to be selected on the basis of a Sieve analysis of the water bearing formation.

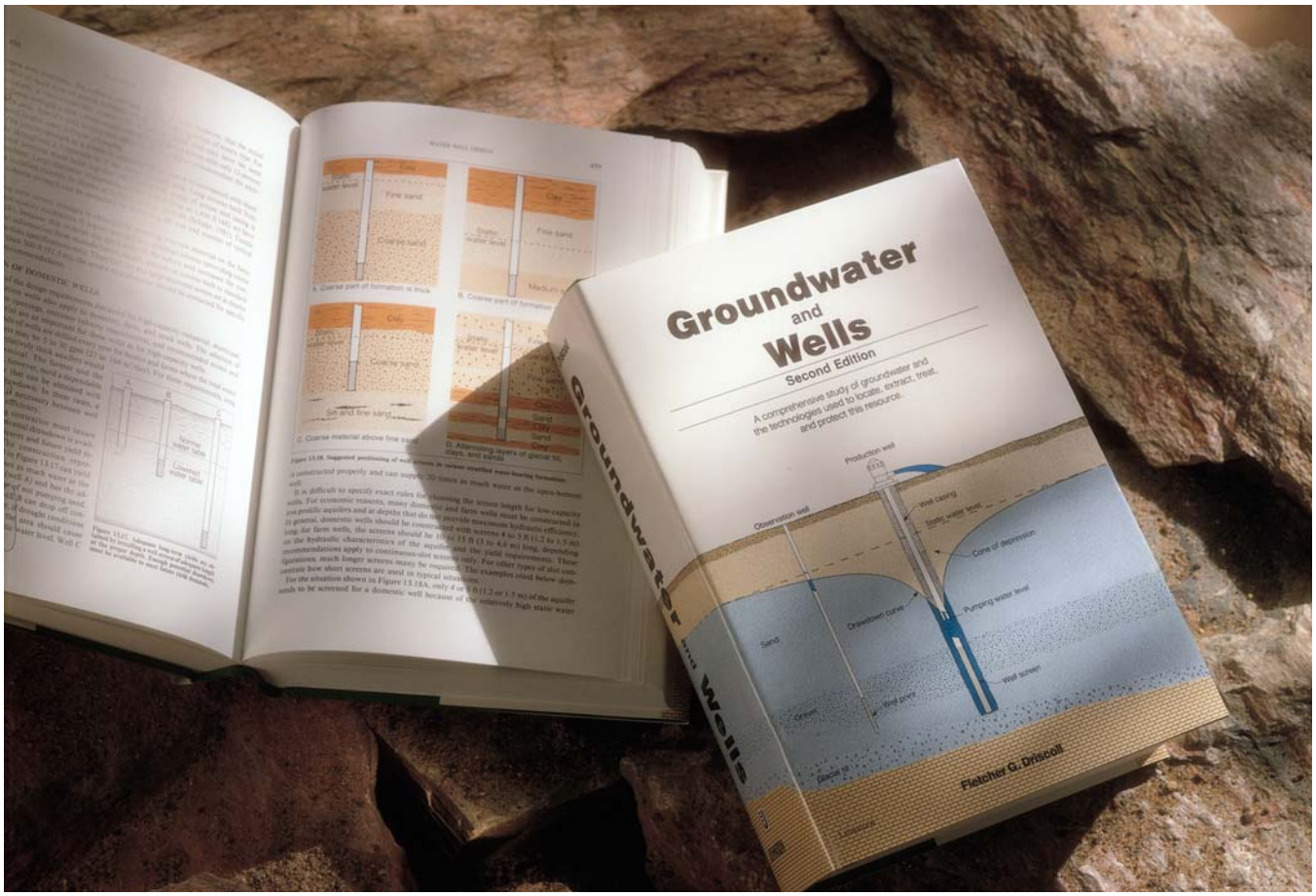
FILTER PACK: The annulus between screens shall be filled with ceramic beads of uniform size and excellent sphericity. The pack size shall be _____ filter size. The pack material shall be installed and compacted by vibrating the unit in a vertical position, while being filled. The top and bottom filter seal plates shall be secured by welding.

TENSILE STRENGTH: The minimum screen tensile strength must exceed 2 times the total Hang Weight of screen and blank casing below the top screen joint. The tensile strength shall be a minimum of _____ pounds. (Tensile strength is total rod area times material yield strength).

SCREEN CONFIGURATION: Screens shall be manufactured in various lengths with a maximum of 40 ft. length overall Screens shall be complete with _____ (material) end fittings attached to each end. Standard weld rings are 6 inches. Weld rings of longer lengths, or threaded fittings may be requested. Screen barrels shall be provided in standard _____ (overall or full) lengths which _____ (include or exclude) the weld ring lengths. Lengths and end fitting configuration to be requested, by the Contractor, and approved by the Engineer.

SCREEN SUBMITTALS

Upon request, the screen manufacturer shall provide a submittal and schematic drawing of the proposed screen design. The documents shall include the OD, ID, construction materials, slot size, approximate weight / ft; wrap wire width, wrap wire height, collapse strength, percent open area, inlet open area / ft, transmitting capacity / ft, number of support rods, diameter of support rods; total cross sectional rod area, material yield strength, tensile strength, column load and recommended hang weight.



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MAKING WATER SUPPLY AND TREATMENT MORE EFFICIENT

In addition to steel water well screens, Johnson Screens is also the industry leader in other water supply systems and treatment technologies.

Johnson PVC screens and casings are widely used in water wells where conditions are less demanding and economy is a consideration. Products range from simple slotted pipe to engineered, wire-wound screens.

Nu-Well™ Chemical products are widely used in the rehabilitation of water wells. These chemicals are specially formulated for safe transport, storage and use. Johnson's Revert® drilling fluid additive facilitates well construction by increasing penetration rates, providing more accurate samples and controlling difficult downhole conditions.

Johnson surface water intake systems, with no moving parts and low intake velocity, offer high capacity, minimum environmental impact, long service life, lower operating costs and minimal maintenance requirements. Our modular designs adapt to all types of difficult site conditions.

Flat panel screens are used for the protection of aquatic life. Their high open area allows laminar water flow preventing turbulence or high velocity zones. Smooth wire surfaces avoid fish injury and help Johnson screens meet all relevant federal environmental standards.

Johnson® nozzles and header-lateral assemblies are used for even flow distribution and collection in water treatment systems. Their high open area and low entrance velocity maximize the efficiency of the filter media which increases productivity and lowers costs.

Johnson screens in Triton™ underdrains provide direct retention of filter media, eliminating intermediate support gravel. Filter bed upset is prevented, space costs are reduced, backwash and filtration efficiency are enhanced and installation is made easier.

Johnson screens™

A Weatherford Company

United States
Johnson Screens, Inc.
P.O. Box 64118
St. Paul, MN 55164
800.VEE.WIRE phone
651.636.3900 phone
651.638.3171 fax

Bakersfield
Johnson Screens, Inc.
6022 State Road
Bakersfield, CA 93308
661.393.7233 phone
661.322.6416 fax

Houston
Johnson Screens, Inc.
11939 Aldine-Westfield
Houston, TX 77093
800.237.7593 phone
281.449.7024 fax

Australia
Johnson Filtration Systems Pty. Ltd.
88 Brickyard Road
Geebung, Queensland 4034
Australia
61.7.3867.5555 phone (national)
61.7.3867.5555 phone (int'l)
61.7.3265.2768 fax (sales)

France
Johnson Filtration Systems S.A.
Zone Industrielle
86530 Availles-en-Châtellerault
France
33 (0) 5 49 02 16 00 phone
33 (0) 5 49 02 16 55 fax

www.johnsonscreens.com

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