

TRI-STATE
CONSULTING ENGINEERS, INC.

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SEP 02 2008

DEPARTMENT OF
WATER RESOURCES

RECEIVED
AUG 13 2008
IDWR/North

August 12, 2008

Idaho Department of Water Resources-Northern Region
Attn: Eric Davis – Water Resources Agent
7600 N. Mineral Dr. Ste. 100
Coeur d'Alene, ID 83815

RE: Water Permit 95-9333 – Ryerson, request for reinstatement / Proof of Beneficial Use

Dear Eric,

On behalf of Denny Ryerson, Tri-State Consulting is requesting to reinstate Water Permit # 95-9333. Attached are:

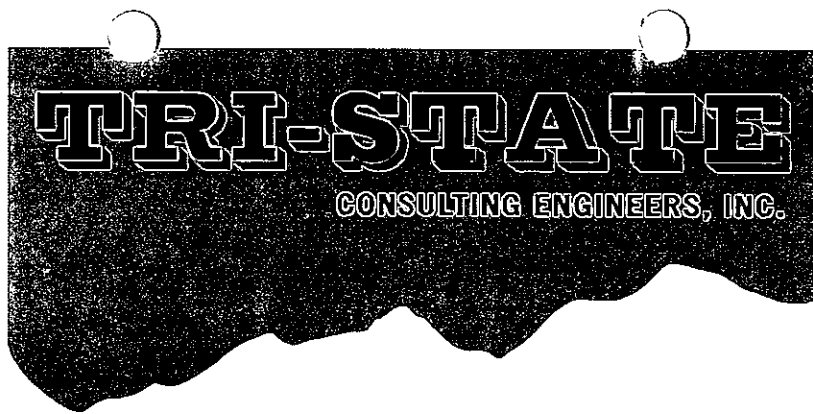
- Statement of Completion & Proof of Beneficial Use Application.
- Field Inspection Fees (\$50).
- Documentation regarding system materials and components (United Pump).
- Verification that the irrigation system is installed and functioning as proposed. (Tri-State and Ron's Sterling Construction)
- Photos of installed system.

Thank you for your participation in the success of our project.

Sincerely yours,
Tri-State Consulting Engineers, Inc.


Dan Martensen, Project Planner

Enclosures:
Cc: 06-012 File



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August 12, 2008

Idaho Department of Water Resources-Northern Region
Attn: Eric Davis – Water Resources Agent
7600 N. Mineral Dr. Ste. 100
Coeur d'Alene, ID 83815

RE: Water Permit 95-9333 – Ryerson, request for reinstatement / Proof of Beneficial Use

Dear Eric,

In March 2006, Denny Ryerson (or representatives) originally applied for two (2) water permits (95-9333 & 95-9334). They are located adjacent to each other; however, they were each intended for separate irrigation systems and eventually would be owned and maintained by separate entities. In May 2007, both applications (95-9333 & 95-9334) were granted approval for an extension of time to prove beneficial use until May 1, 2008. In October 2007, the irrigation system for the "Ryerson Residence Estate" property (95-9333) was completed and made operational by United Pump & Drilling of Coeur d'Alene, Idaho. Under the supervision of Ron's Sterling Construction, Ron Glessnor, Construction Superintendent, the system was winterized for the winter months of 2007-08, and re-started in May 2008, after high water conditions receded, and has been used during the landscaping construction process to date.

On May 1, 2008, Tri-State Consulting submitted an application for Proof of Beneficial Use for one (1) of the permits, "Water Permit 95-9334". The other permit was determined to be no longer needed, and was allowed to "Lapse".

A mistake was made on Tri-States' part, by transposing permit numbers and application packages. Water Permit 95-9334 was supposed to be the permit that lapsed. Water Permit 95-9333 is the permit that has been installed, and is currently functioning as proposed.

Therefore, we are requesting that 95-9333 be re-instated and 95-9334 to be allowed to lapse.

Please do not hesitate to contact our office if you have any questions or require any additional documentation.

Thank you for your participation in the success of our project.

Sincerely yours,
Tri-State Consulting Engineers, Inc.

A handwritten signature in black ink, appearing to read "Dan Martinsen", is written over a horizontal line.

Dan Martinsen, Project Planner

Cc: 06-012 File



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August 11, 2008

To: Mr. Dan Martinsen
Tri State Consulting Engineers, LLC

From: Aron Bennett
United Pump & Drilling

Re: Denny Ryerson's Lake Irrigation System @ Goulds Landing

Dear Dan,

In response to your request we pulled and reviewed the file for the above mentioned water system to establish the time benchmarks for installation. The system was installed last fall in the latter part of September and early part of October. The system was commissioned on October 22, 2007, run for a short period of time until the weather turned cold and then was winterized for the season. The system was fired back up again this spring after the lake level receded and has been operating normally since that time. Please let me know if you need any further information regarding this system.

Regards,

Aron Bennett – Senior Project Manager
United Pump & Drilling
Ph# 772-7867
Fax# 772-7229



STERLING CONSTRUCTION

9571 W.Thompson Rd.,CD'A Id.83814

LLC

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AUGUST 12,2008

TO :Dan Martinsen

Tri State Consulting Engineers,llc

From:Ron Glessner

Sterling Construction,llc

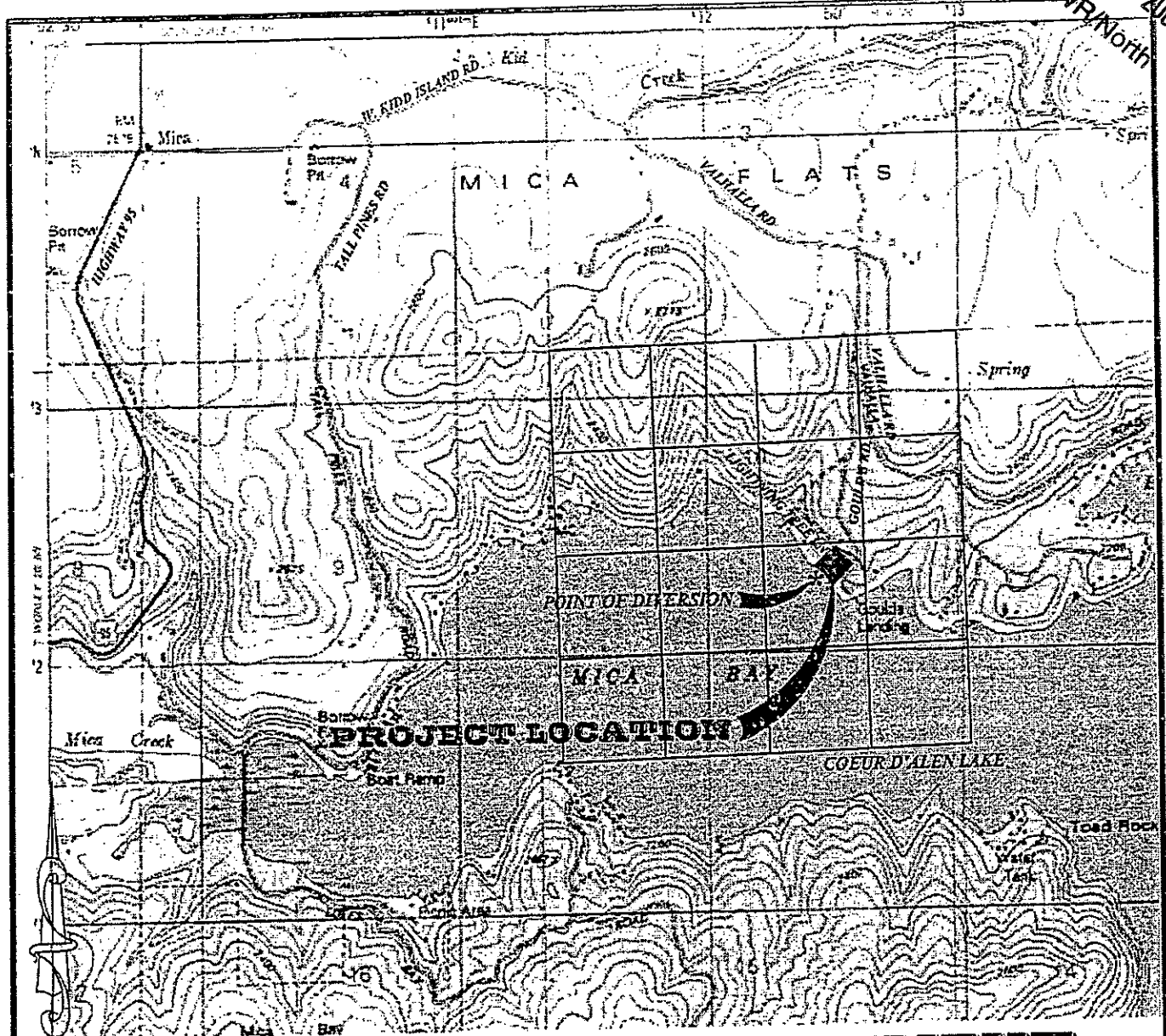
RE:Ryerson irrigation pump@Mica Bay

Dear Dan,

In reference to your E-mail regarding the Ryerson irrigation system as it relates to installation and use.The system was activated on or about October 22,2007 and used for approximately three weeks until it was necessary to winterize for the remainder of the season.The system was activated again in late May after lake flooding receded and has operated regularly since that time.

Sincerely,Ron Glessner

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WATERLINE ENCROACHMENT

2.2 ACRES RYERSON RESIDENCE

PORTIONS OF SECTION 10, T.49N., R.4W., B.M.,
KOOTENAI COUNTY, IDAHO

COEUR D'ALENE, IDAHO
IS 10 MILES AWAY

ISSUE DATE: 2/17/06	DRAWN BY: SMM
DWG FILE: *DEPT-OF-LANDS	SCALE: 1"=2000
PROJ. # 04-123	

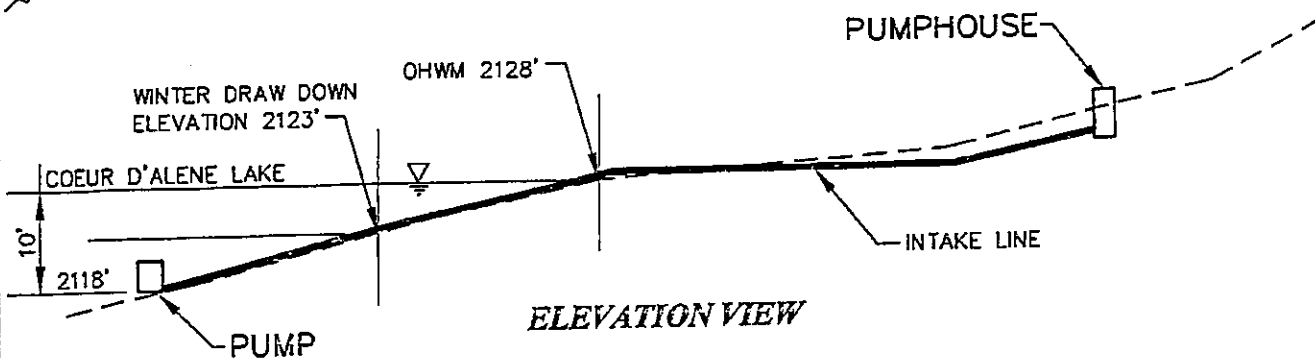
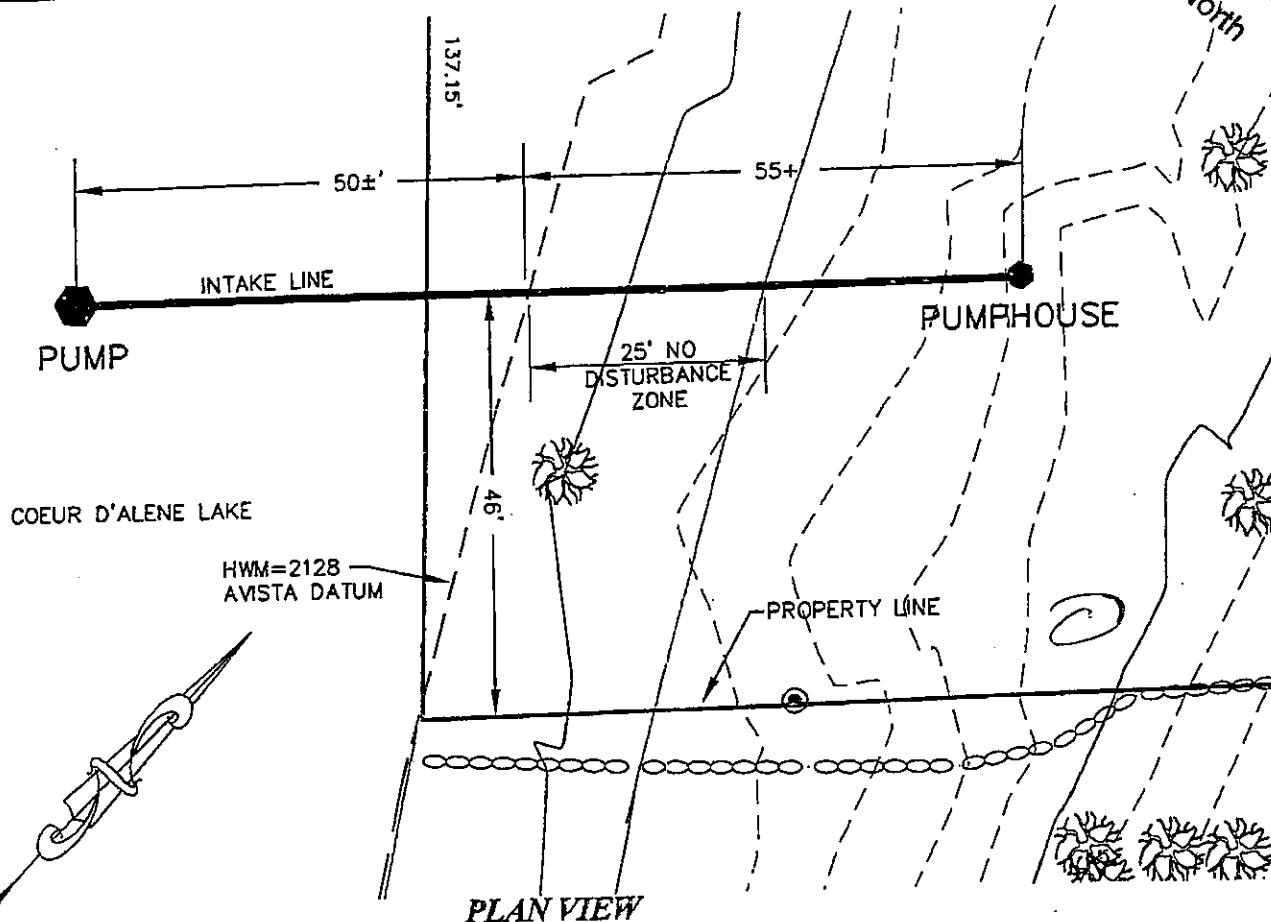
SHEET TITLE: VICINITY MAP

NWW No.
Mr. Denny Ryerson
Coeur D'Alene Lake
Kootenai County, Idaho
Sheet 1 of 2



ENGINEERS • SURVEYORS • PLANNERS
1296 Polston Ave., Suite B, Post Falls, Idaho 83854
PHONE (208) 773-8370 www.incnorthwest.com FAX (208) 777-2128

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2.2 ACRE RYERSON RESIDENCE
PORTIONS OF SECTION 10, T.49N., R.4W., B.M.,
KOOTENAI COUNTY, IDAHO

COEUR D'ALENE, IDAHO
IS 10 MILES AWAY

ISSUE DATE: 2/17/06 DRAWN BY: SMM
DWG FILE: *DEPT-OF-LANDS SCALE: 1"=20'
PROJ. # 04-123 DATUM: AVISTA

SHEET TITLE:
ENCROACHMENT PLAN

NWW No.
Mr. Denny Ryerson
Coeur d'Alene Lake
Kootenai County, Idaho
Sheet 2 of 2

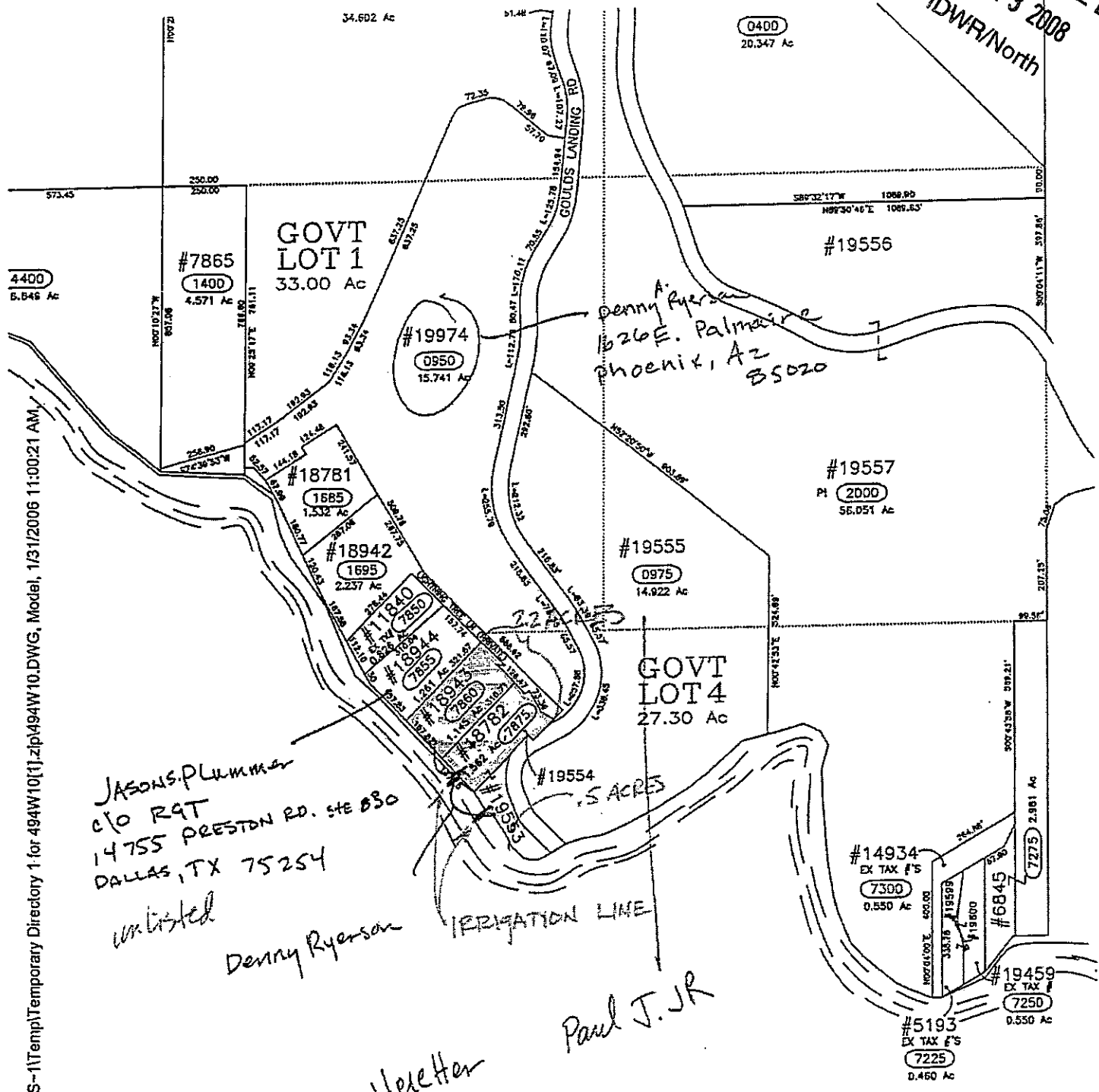


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DENNY RYERSON



Hereafter
PO BOX 2
COA ID 85816
208-667-1253

#19553



Sales • Service • Installation
Well Drilling • Pump Systems
Residential • Commercial • Municipal

August 8, 2008

Ron's Sterling Construction
Attn: Ron Glessner
9571 W Thompson Rd.
Coeur d'Alene, ID 83814

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System # 4

To our valued customer,

We are pleased to submit the following proposal for the installation of a Lake Water Irrigation Pumping System for your project at **Denny Ryerson's** lake home. Our estimate is based on an elevation lift of 60' and a pipe run of 300' out into the lake. Pump activations to be from pressure and controlled by a cycle gaurd constant pressure control valve. *This system needs special attention to winterize. Assist in winterizing and start up is not included.* Your system will include the following:

" Lake Water Pumping System "

The unit selected for your system will deliver an average of 70-90 GPM to your upper irrigation system

- | | | |
|-----|-----|--|
| 1 | ea. | Jacuzzi 75S675-8XX 7-1/2 hp 230 volt pump /motor/control |
| 1 | ls. | 6" Intake structure |
| 300 | lf. | 2" Water line with heat tape, #6/4 wire in poly conduit |
| 1 | ls. | In Vault plumbing w/ cycle stop and tank |
| 1 | ls. | 48" utility vault for underground plumbing |
| 1 | ls. | Misc. Electrical |
| 1 | ls. | Plumbing & Electrical permit |
| 1 | ls. | Labor to install system |

*NOTE: The above estimate does not cover any excavation of the piping network, encroachment & usage permit,
Electrical service to pressure tank location, and relocation of components after installation.
This Quotation does not include hand excavation of the piping net work from shore to pump vault.
Please call with any questions.*



Franklin Pump Systems

**NEW
STAINLESS
STEEL!**

Submersibles

SandHandler™ High Capacity 6" Submersible Pumps Models S650 & S675



High Capacity 6" Submersible Pumps.

Available with the same sandhandling capabilities that our popular 4" SandHandler offers. The S650 and S675 models are ideal for farm, home, irrigation, industry, municipal and commercial use - packing power and performance. The S650 is available in 1-1/2 HP through 10 HP models. The S675 is available in 3 HP through 20 HP models.

Features:

- ☐ Heavy-duty stainless steel discharge head and motor bracket.
- ☐ Stainless steel shaft, shell, intake screen and cable shield for corrosion resistance and longer life.
- ☐ Stainless steel wear ring and Urethane floating eye seal for improved performance and efficiency.
- ☐ Glass-filled Noryl impeller stage assemblies for incredible strength and durability.
- ☐ Ceramic shaft sleeve and rubber discharge bearing minimizes bearing wear and shaft misalignment without affecting pump efficiency.
- ☐ 3" NPT tapping in heavy-duty stainless steel discharge head.
- ☐ **NEW** fastener kit supplied for both 4" and 6" motors.
- ☐ Enables 1 1/2 - 7 1/2 HP units to be mounted to either a 4" or 6" submersible motor.
- ☐ One year unconditional warranty against failure from sand locking in abrasive well conditions.

Model Number Explanation

Example: 5S675-5XX

5 = 5 HP

S6 = 6" Submersible Pump End

75 = GPM

5 = Number of stages

XX = Stainless Steel

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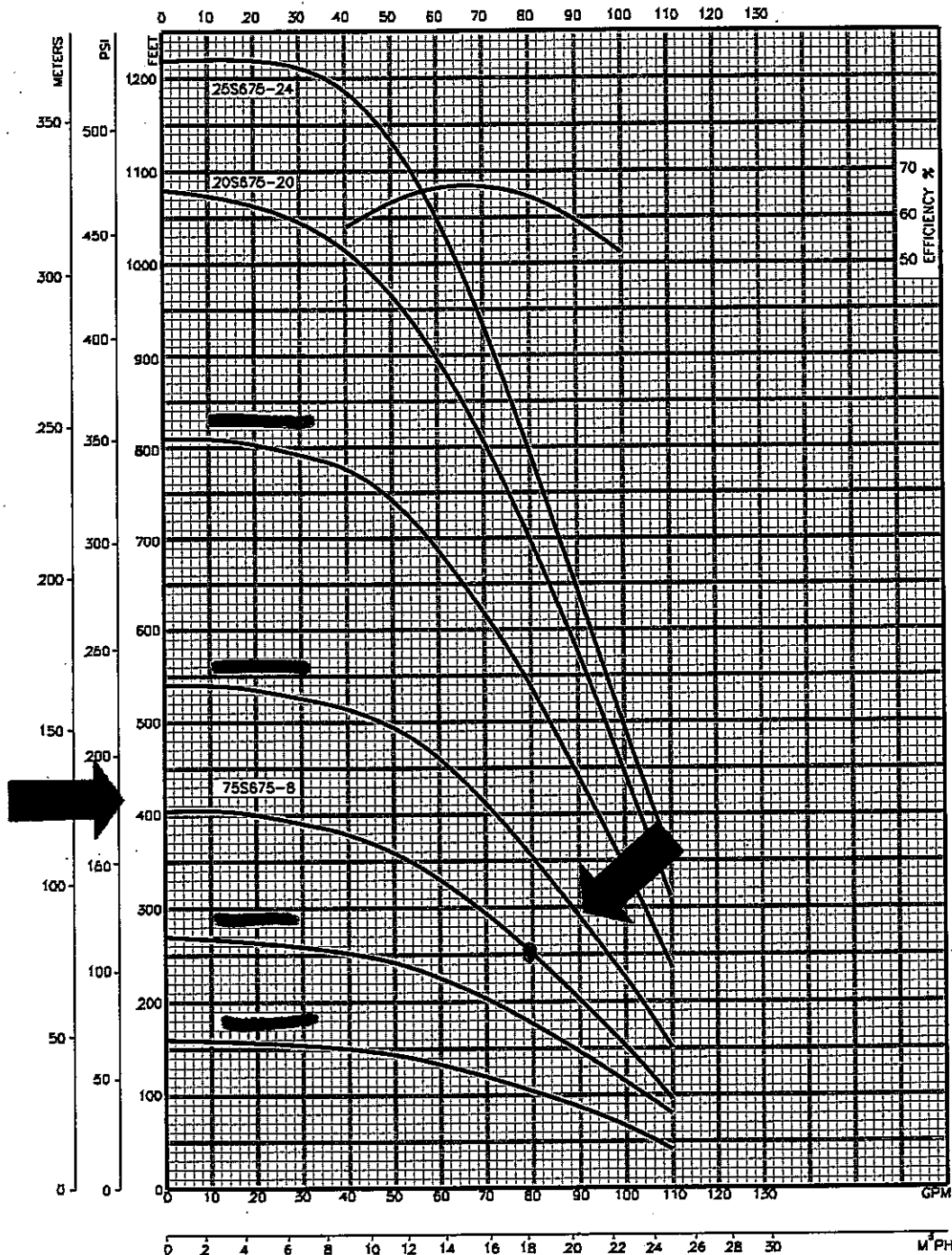


SandHandler™

High Capacity 6" 75 GPM

Performance Curves

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Franklin Pump Systems

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Submersibles

SandHandler™ High Capacity 6" 75 GPM

Performance Charts

PUMP MODEL	PSI	DEPTH TO PUMPING WATER LEVEL, OR LIFT, IN FEET																				Shut-Off Head Feet						
		40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750		800	850	900	950	1000	
		CAPACITIES IN U.S. GALLONS PER MINUTES																										
3S6753 3HP	0	110	104	94	84	72	57	25																			161	
	20	92	80	68	52																							
	30	78	65	48																								
	40	63	44																									
	50	39																										
5S6755 5HP	0	-	115	109	104	98	92	86	79	72	49																253	
	20	107	102	96	90	84	77	70	62																			
	30	101	95	89	83	76	69	60																				
	40	94	88	82	75	68	59																					
	50	87	80	73	66	57																						
	60	80	72	65	55																							
7S6758 7-1/2 HP	0	-	-	110	108	105	101	98	94	90	80	68	54	20													404	
	20	110	108	104	100	96	93	89	85	81	69	56	28															
	30	107	104	100	96	92	88	84	80	76	64	48																
	40	103	99	95	91	88	84	79	75	70	57	33																
	50	99	95	91	87	83	79	74	70	65	49																	
	60	94	90	87	82	78	74	69	64	58	36																	
10S67510 10 HP	0	-	-	-	-	-	-	-	109	107	104	96	89	81	72	62	47										540	
	20	-	-	-	110	108	106	103	100	97	89	82	73	63	49													
	30	-	-	110	108	105	103	100	97	94	86	78	68	57	38													
	40	-	110	108	105	102	99	96	93	90	82	73	64	50														
	50	110	107	105	102	99	96	93	90	86	78	69	58	40														
	60	107	104	101	98	95	92	89	86	83	74	64	52															
15S67515 15 HP	0	-	-	-	-	-	-	-	-	109	104	99	94	89	84	78	72	66	58	48	26						810	
	20	-	-	-	-	-	-	-	-	109	104	100	95	90	84	79	73	66	58	48	29							
	30	-	-	-	-	-	-	-	-	107	102	97	92	87	82	76	70	63	54	41								
	40	-	-	-	-	-	-	-	-	105	100	95	90	85	79	73	67	59	50	32								
	50	-	-	-	-	-	-	-	-	103	98	93	87	82	76	70	63	55	43									
	60	-	-	-	-	-	-	-	-	100	95	90	85	80	74	67	60	50	33									
20S67520 20 HP	0	-	-	-	-	-	-	-	-	-	110	107	104	100	97	93	89	85	81	77	72	67	62	56	48		1080	
	20	-	-	-	-	-	-	-	-	-	108	104	100	97	93	89	86	81	77	72	67	62	56	48	38			
	30	-	-	-	-	-	-	-	-	-	110	106	103	99	95	91	88	84	79	75	70	65	60	53	44	24		
	40	-	-	-	-	-	-	-	-	-	108	105	101	97	93	90	86	82	77	73	68	63	57	50	39			
	50	-	-	-	-	-	-	-	-	-	110	106	103	99	95	92	88	84	80	75	71	66	60	55	45	26		
	60	-	-	-	-	-	-	-	-	-	108	105	101	98	94	90	86	82	78	73	69	63	57	53				40
25S675-24 25 HP		DEPTH TO PUMPING WATER LEVEL, OR LIFT, IN FEET																				Shut-Off Head Feet						
	PSI	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200								
	0	-	-	106	103	99	96	93	89	86	83	79	76	72	68	64	60	54	47	36						1220		
	20	-	106	103	99	96	93	89	86	83	79	76	72	68	64	60	54	48	36									
	30	108	105	102	98	94	92	88	85	81	78	75	70	66	62	58	52	44	24									
	40	106	103	100	96	92	89	86	83	79	76	72	68	64	60	54	48	38										
	50	105	101	98	95	91	88	85	81	78	75	71	67	63	58	52	44	26										
60	103	100	96	93	90	86	83	79	76	73	69	65	61	56	49	39												

Discharge tapping 3" FNPT.

- Notes:
- 1) Performance shown does not include friction loss in the drop pipe.
 - 2) All performance data is based on rated motor nameplate voltage.
 - 3) S675 models are the same as former S6B models.

Franklin Pump Systems



SandHandler™ High Capacity 6"

Stainless Steel Ordering Information

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1-1/2 - 25 HP 6" PUMP ENDS								
GPM	HP	Stages	Motor Fit	Ordering Info.		Dimensions		Wt.
				Model No.	Order No.	Shell	PEA	
50	1-1/2	4	4"	15S650-4XX	92625004	8.57	14.69	32
	2	5	4"	2S650-5XX	92625005	10.88	17.00	32
	3	6	4"	3S650-6XX	92625006	12.51	18.63	33
	5	10	4" & 6"	5S650-10XX	92625010	18.94	25.06	39
	7-1/2	15	4" & 6"	75S650-15XX	92625015	26.88	33.00	46
	10	20	4" & 6"	10S650-20XX	92625020	35.07	41.19	52
 75	3	3	4"	3S675-3XX	92627503	7.57	13.69	32
		5	4" & 6"	5S675-5XX	92627505	10.88	17.00	32
	7-1/2	8	4" & 6"	75S675-8XX	92627508	15.69	21.81	36
		10	4" & 6"	10S675-10XX	92627510	18.94	25.06	39
	15	15	6"	15S675-15XX	92627515	26.88	33.00	46
	20	20	6"	20S675-20XX	92627520	35.07	41.19	52
	25	24	6"	25S675-24XX	92627524	41.57	47.69	57

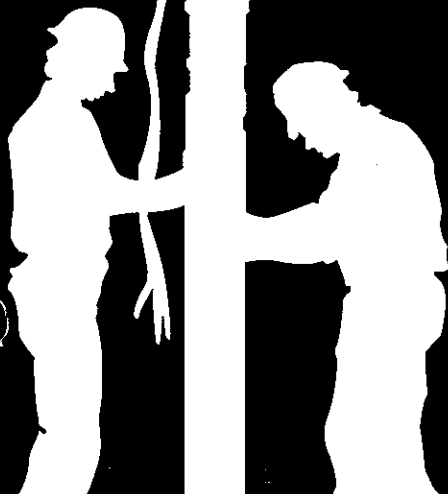
Note: All dimensions are in inches. Discharge is 3" NPT. Maximum diameter across cable guard is 5.5" on all models. Weight in pounds.

2003

Submersible Motors

Application ♦ Installation ♦ Maintenance

60 Hz, Single and Three Phase Motors



Franklin Electric

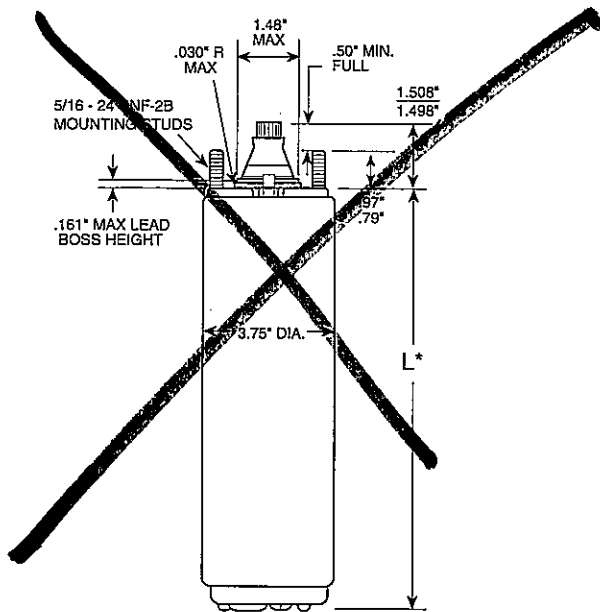
The Company You Trust Deep Down



Installation - All Motors

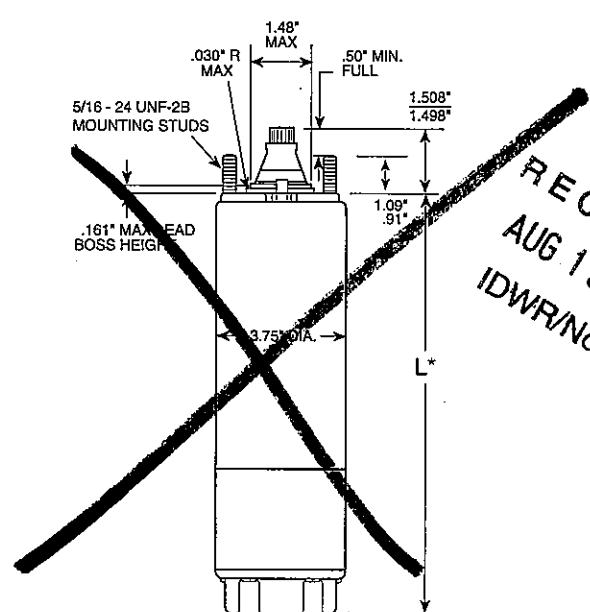
4" Super Stainless — Dimensions

(Standard Water Well)



4" High Thrust — Dimensions

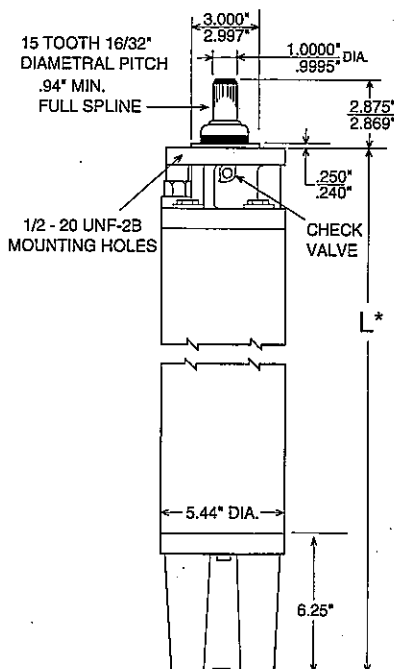
(Standard Water Well)



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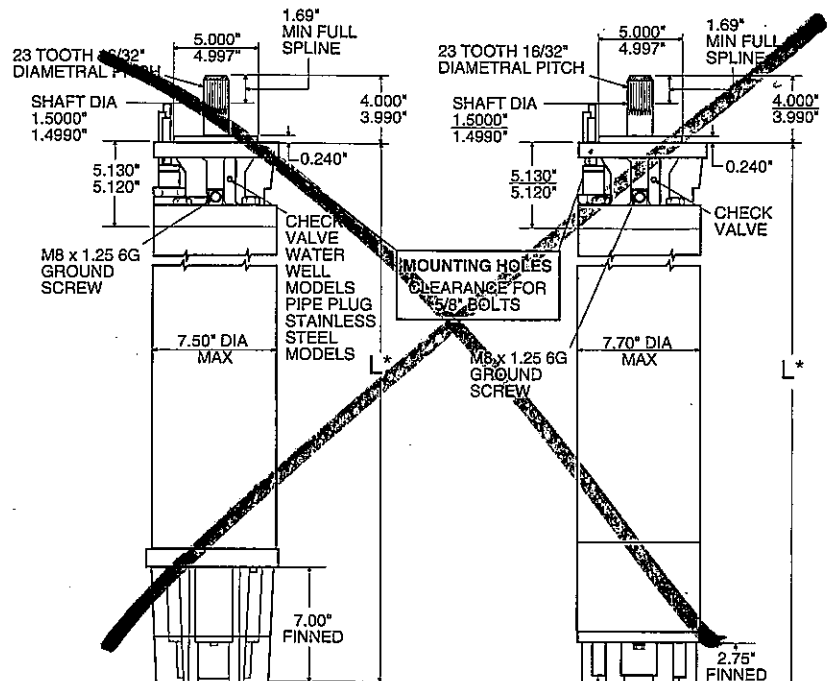
6" — Dimensions

(Standard Water Well)



8" — Dimensions

(Standard Water Well)



40 to 100 HP

125 to 200 HP

* Motor lengths and shipping weights are available on Franklin Electric's web page (www.franklin-electric.com) or by calling Franklin's submersible hotline (800-348-2420).



Application - Single Phase Motors

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Table 13 Single Phase Motor Specifications (60 Hz) 3450 RPM

Type	Motor Model Prefix	Rating					Full Load		Maximum (S.F. Load)		Winding (1) Res. In Ohms	Efficiency %		Power Factor %		Locked Rotor AMPS	KVA Code
		HP	KW	Volts	Hz	S.F.	(2) Amps	Watts	(2) Amps	Watts	M=Main Res. S=Start Res.	S.F.	F.L.	S.F.	F.L.		
4 Inch 2-Wire	244504	1/2	0.37	115	60	1.6	10	680	12	970	1.0-1.3	62	55	73	58	64.4	R
	244505	1/2	0.37	230	60	1.6	5	680	6	970	4.2-5.2	62	55	73	58	32.2	R
	244507	3/4	0.55	230	60	1.5	6.8	950	8	1325	3.0-3.6	64	59	74	62	40.7	N
	244508	1	0.75	230	60	1.4	8.2	1200	9.8	1600	2.2-2.7	65	62	74	63	48.7	N
	244309	1 1/2	1.1	230	60	1.3	10.6	1780	13.1	2250	1.5-1.9	65	63	80	74	66.6	M
4 Inch 3-Wire	214504	1/2	0.37	115	60	1.6	Y10.0 B10.0 R0	680	Y12.0 B12.0 R0	970	M1.0-1.3 S4.1-5.1	62	55	73	58	50.5	M
	214505	1/2	0.37	230	60	1.6	Y5.0 B5.0 R0	680	Y6.0 B6.0 R0	970	M4.2-5.2 S16.7-20.5	62	55	73	58	23	M
	214507	3/4	0.55	230	60	1.5	Y6.8 B6.8 R0	950	Y8.0 B8.0 R0	1325	M3.0-3.6 S10.7-13.1	64	59	74	62	34.2	M
	214508	1	0.75	230	60	1.4	Y8.2 B8.2 R0	1200	Y9.8 B9.8 R0	1600	M2.2-2.7 S9.9-12.1	65	62	74	63	41.8	L
4 Inch 3-Wire w/ CRC CB	214504	1/2	0.37	230	60	1.6	Y3.6 B3.7 R2.0	655	Y4.3 B4.0 R2.0	890	M4.2-5.2 S16.7-20.5	67	57	90	81	24.5	M
	214507	3/4	0.55	230	60	1.5	Y4.9 B5.0 R3.2	925	Y5.7 B5.2 R3.1	1220	M3.0-3.6 S10.7-13.1	69	60	92	84	35.3	M
	214508	1	0.75	230	60	1.4	Y6.0 B5.7 R3.4	1160	Y7.1 B6.2 R3.3	1490	M2.2-2.7 S9.9-12.1	70	64	92	86	45.4	L
4 Inch 3-Wire	214508 w/ 1 1/2 CB	1	0.75	230	60	1.4	Y6.6 B6.6 R1.3	1130	Y8.0 B7.9 R1.3	1490	M2.2-2.7 S9.9-12.1	70	66	82	72	43	L
	224300	1 1/2	1.1	230	60	1.3	Y10.0 B9.9 R1.3	1700	Y11.5 B11.0 R1.3	2150	M1.7-2.2 S8.0-9.7	68	66	81	74	52	J
	224301	2	1.5	230	60	1.25	Y10.0 B9.3 R2.6	2100	Y13.2 B11.9 R2.6	2650	M1.8-2.3 S5.8-7.2	70	71	93	91	51	G
	224302 (3)	3	2.2	230	60	1.15	Y14.0 B11.2 R6.1	3020	Y17.0 B12.6 R6.0	3430	M1.0-1.5 S4.0-4.9	75	74	97	96	83.5	H
	224303 (4)	5	3.7	230	60	1.15	Y23.0 B15.9 R11.0	5250	Y27.5 B19.1 R10.8	5960	M.68-1.0 S1.8-2.2	72	71	100	99	121	F
	226110 (5)	5	3.7	230	60	1.15	Y23.0 B14.3 R10.8	4910	Y27.5 B17.4 R10.5	5570	M.55-.68 S1.3-1.6	77	76	100	99	99	E
6 Inch	226111	7 1/2	5.5	230	60	1.15	Y36.5 B34.4 R5.5	7300	Y42.1 B40.5 R5.4	8800	M.36-.50 S.88-1.1	73	74	91	90	165	F
	226112	10	7.5	230	60	1.15	Y44.0 B39.5 R9.3	9800	Y51.0 B47.5 R8.9	11300	M.27-.33 S.80-.99	76	77	96	96	204	E
	226113	15	11	230	60	1.15	Y62.0 B52.0 R17.5	13900	Y75.0 B62.5 R16.9	16200	M.17-.22 S.68-.93	79	80	97	98	303	E

- (1) Main winding - yellow to black
Start winding - yellow to red
- (2) Y = Yellow lead - line amps
B = Black lead - main winding amp
R = Red lead - start or auxiliary winding amps
- (3) Control Boxes date coded 02C and older have 35MFD run capacitors and the current values will be Y14.0 @ FL and Y17.0 @ SF Load.
B12.2 B14.5
R4.7 R4.5
- (4) Control Boxes date coded 01M and older have 60MFD run capacitors and the current values on a 4" motor will be Y23.0 @ FL - Y27.5 @ SF Load.
B19.1 B23.2
R8.0 R7.8
- (5) Control Boxes date coded 01M and older have 60MFD run capacitors and the current values on a 6" motor will be Y23.0 @ FL - Y27.5 @ SF Load.
B18.2 B23.2
R8.0 R7.8

Performance is typical, not guaranteed, at specified voltages and specified capacitor values. Performance at voltage ratings not shown is similar, except amps vary inversely with voltage.



CONTROL VALVES

Bulletin: CN101-081400 Rev: 4
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CycleGard® II

Series CN100

Pump Control/Regulating Valve
Extended Pressure Regulating Range 30-300 PSI

- ☒ Prevent pump short cycling
- ☒ Constant pressure
- ☒ Field adjustable
- ☒ Economical

Operation

Flomatic's **CYCLEGARD® II** is a pilot operated pump pressure regulating control valve incorporating an adjustable unleaded pressure reducing pilot and a by-pass timing control valve. The unit is designed to give a constant regulated down stream pressure and prevent pump cycling during normal operation. Isolation valves are provided for manual operation and for inline servicing of external Y-strainer and pilot controls.

Construction

The main control valve body is constructed from an epoxy coated ductile iron, allowing high structural and hydrodynamic forces. The pilot control valve is unleaded bronze with replaceable stainless steel valve seat.

Design for these applications:

- Irrigation *Golf courses, Schools, Parks, Estates, Farms & Residential Developments*
- Pump Booster Systems *Hotels, Restaurants, Manufacturing Plants, Apartments & Subdivisions.*
- Water Well Pumps *Domestic and Municipal water well supply systems.*

Optional Features

Model CN103 incorporates a check feature to prevent reverse flow. Model CN104 includes a backpressure (sustaining) valve to protect against over-drafting the water supply. Model CN104C incorporates a combination of both the check valve and the backpressure features explained above.

Threaded or flanged connection (Optional BSP) Regulating

Size	CYCLEGARD® II Model	Pumping Rate gpm	Recommended Tank Draw Down	Well-X-Trol Model	A.O. Smith Model	Well Mate Structural Fibers
1"	CN1010A	10 to 15 gpm	5 gpm	WX202	V-60	WM-6
1 1/4"	CN1010B	15 to 30 gpm	5 gpm	WX202	V-60	WM-6
1 1/2"	CN1010C	15 to 75 gpm	22 gpm	WX302	V-250	WM-12
2"	CN1010D	25 to 125 gpm	32 gpm	WX350	V-350	WM-35WE
2 1/2"	CN1010E	50 to 200 gpm	32 gpm	WX350	V-350	WM-35WE
3"*	CN1010F	75 to 300 gpm	64 gpm	(2) WX350	(2)V-350	(2)WM-35WE
4"*	CN1010G	100 to 600 gpm	96 gpm	(3) WX350	(3) V-350	(3) WM-35WE

*NOTE: Cyclegard® in 2", 2 1/2" & 3" sizes are available in threaded or flanged versions. The 4" and 6" Model are flanged.

Caution: The maximum pressure rating of the standard **CYCLEGARD® II** is 300 PSI. If the inlet pressure (The pump shut off head) is higher, consult factory for recommendation regarding the use a higher rated valve model or a pressure relief valve (Model C401). A relief valve to protect the tank from excessive pressure is also required. A check valve shall be installed on the inlet side of the **CYCLEGARD®** to prevent backflow. See separate installation sheet.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CYCLEGARD® II incorporates Flomatic's new Model PRP pressure reducing pilot with an extended pressure regulating range from 30-300PSI.

www.flomatic.com 15 Pruyn's Island, Glens Falls, New York 12801
Phone: 518-761-9797 Fax: 518-761-9798

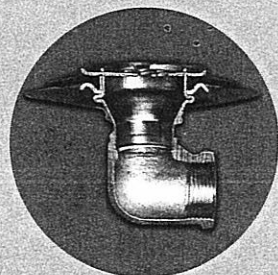


Challenger™ Series

The Industry's Fighting Brand!

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- ANSI/NSF Standard 61 Approved
- Stainless Steel Water Connection
- Controlled Action Diaphragm (CAD)
- Condensation Reducing Design
- Welded Steel Elbow
- Appliance Quality Paint Finish
- High Quality Brass Air Stem
- Comprehensive Testing
- 5 Year Written Limited Warranty



Welded Water System Connection

Challenger tanks are the industry's fighting brand and one of the more popular water tanks on the market. Efficient and cost-effective, Challenger tanks are designed with a patented controlled action, double diaphragm assembly that is completely contained in a pre-pressurized air cushion that reduces condensation and regulates diaphragm action. Challenger tanks have a threaded nut for easy installation of pump stand, a welded steel elbow and an adjustable air charge. Clean, airtight welds are achieved using the most modern welding equipment available. Challenger tanks are completed with an appliance quality paint finish over primer coat, which combines durability and high luster.

Our diaphragms are constructed with a FDA approved high grade butyl. Challenger tanks' true airflow design means fewer problems with condensation. Our diaphragm's positive lock internal clench ring cannot slip and does not rely on the tank wall. The tank contains a stainless steel port diffuser, and water connection which directs water flow upward and outward while locking the lower diaphragm in place.

All of our quality tanks are backed by a five year written, limited warranty. Challenger tanks are quality tested at four different stages on the production line. Tests include helium and high pressure tests to ensure the structural integrity of every tank.





Challenger® Series Models

Model #'s	Dimensions				System Connect.	Volume		Shipping (Box) Volume		Shipping (Box) Weight	
	Diameter		Height			gal.	liter	cu. ft.	cu. m.	lbs.	kilo.
	in.	cm.	in.	cm.							
PC44	16	40.64	22	55.88	1"	14	60	3.62	0.10	28.0	12.7
PC66	16	40.64	29	73.66	1"	20	80	4.73	0.13	36.0	16.3
PC88	16	40.64	34.5	87.63	1"	26	100	5.59	0.16	41.0	18.6
PC111	21	53.34	27.75	70.48	1¼"	32	120	7.76	0.22	54.0	24.5
PC122	16	40.64	42.75	108.58	1"	33.4	130	6.93	0.19	49.0	22.2
~~PC144~~	21	53.34	36.25	92.07	1¼"	44	170	10.17	0.28	67.0	30.4
PC211	21	53.34	48	121.92	1¼"	62	240	13.64	0.38	82.0	37.2
~~PC244~~	21	53.34	62	157.48	1¼"	81	310	16.45	0.46	99.0	44.9
PC266	26	66.04	44.5	113.03	1¼"	85	325	18.69	0.52	121.0	54.9
PC366	26	66.04	59.75	150.49	1¼"	119	450	26.16	0.73	153.0	69.5

All Models: 38 psi/2.6 bar pre-charge
 Maximum working pressure: 125psi/8.4 bar
 Maximum working temperature: All models - 140°F/55°Celsius
 Certified to ANSI/NSF 61 (73°F/23°C)

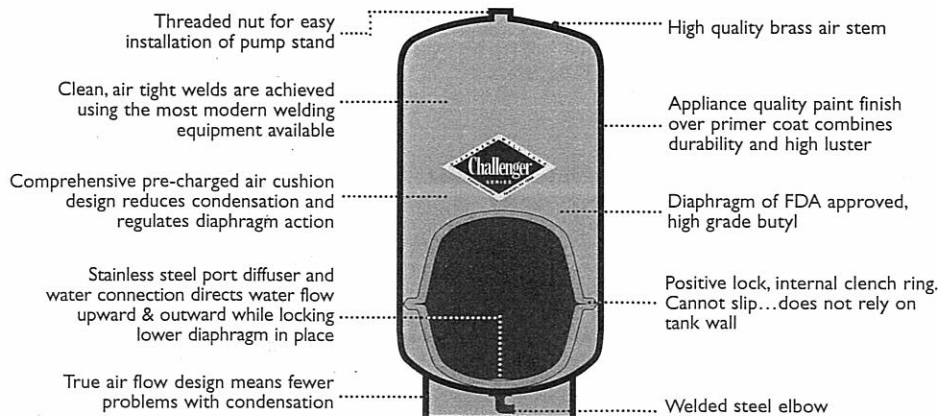
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Quick Sizing Chart

Model #s	Total Tank Volume		Total Drawdown					
	gal.	liters	20/40		30/50		40/60	
PC44	14	60	5.6	21.35	4.8	18.1	4.1	15.6
PC66	20	80	8.1	30.51	6.8	25.8	5.9	22.3
PC88	26	100	10.5	39.66	8.9	33.6	7.7	29.0
PC111	32	120	12.9	48.81	10.9	41.3	9.4	35.7
PC122	33	130	13.3	50.34	11.3	42.6	9.7	36.8
~~PC144~~	44	170	17.7	67.12	15.0	56.8	13.0	49.1
PC211	62	240	25.0	94.57	21.1	80.0	18.3	69.2
~~PC244~~	81	310	32.6	123.6	27.6	104.5	23.9	90.4
PC266	85	325	34.3	129.7	29.0	109.7	25.1	94.9
PC366	119	450	48.0	181.5	40.6	153.6	35.1	132.9

* Total drawdown assumes tank pre-charge set at 2 psi below cut-in pressure.

Drawdown can be affected by many factors, including temperature, pressure, and elevation.



Flexcon Industries
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For More Information
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 Fax 1.781.986.2029
 www.flexconind.com



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