

## 23000 Series Domestic Stainless Steel

A.Y. McDonald offers a full line of four-inch submersibles ranging from 1/3 through 5 horsepower, with flow rates ranging from 5 through 25 GPM. Our 23000 submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM) models.

Powered by A.Y. McDonald stainless steel motors.

The charts on the following page will assist you in choosing the pump that meets your needs.



### Discharge

300 Series stainless steel, corrosion resistant, easy wrench design, built in safety eye, threads into shell.



### Discharge Bearing

Rubber surrounding the stainless steel shaft provides superior wear resistance against the harshest conditions. Self-lubricating for long life.



### Check Valve

A.Y. McDonald's "Diamond Design" check valve. Easy out design for maximum convenience and versatility.

### Cable Guard

Stainless steel cable guard protects motor leads. Angled top helps keep leads stationary when lowering and raising submersible pump.

### Diffuser

Polycarbonate Durable, corrosion, and abrasion resistant. Designed for efficient performance and superior sand handling capability.



### Impeller

Glass bead acetal. This smooth and flexible material is precision engineered for maximum performance.



A.Y. McDonald uses its time proven captured stack design. The captured stack design incorporates sand notches into the diffusers, which is proven to keep sand flowing thru the stack over time.

### Heavy Stainless Steel Shell

Threaded at both ends for easy field service.

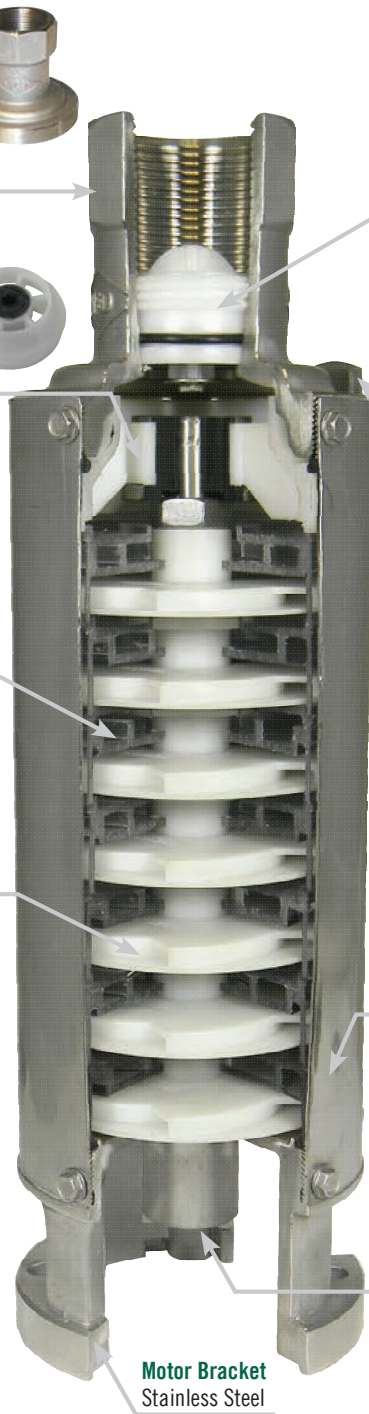
### Stainless Steel Hex Shaft 7/16"

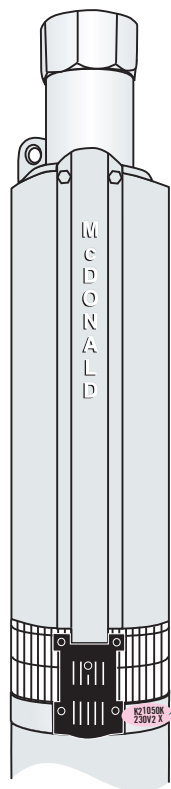
7/16" 300 Series Stainless Steel, hex design for positive impeller drive. Each shaft individually measured for straightness with strict tolerances. Achieves maximum corrosion resistance for longer life.



### Motor Bracket Stainless Steel

- Once assembled, each pump is individually tested to assure performance within design specifications.
- Each pump is stamped with the tester's "signature" marking to assure quality control.





## Locating the code number on the pump

**EXAMPLE**

Date Code	Motor HP	Pump GPM
K21	050	K
Voltage	No. of Power Leads	Assembler's Code
230V	2	X

A code is stamped on each A.Y. McDonald 23000 series submersible pump. Contained in this code is the following information:

- Date of manufacture
- Motor HP
- Pump GPM
- Voltage | Optional
- Number of power leads | Optional
- Assembler's code

Submersible Pumps

### NOTES

- Standard is 230V, Single Phase, 60 HZ (no suffix letter required)
- **Two-Wire Single phase** models include; pump, motor, leads.
- **Three-Wire Single phase** models include; pump, motor, leads, and control box.
- **Three-Wire Three phase** models include; pump, motor, leads, and starter kit.
- All submersible pumps include **internal check valves and grounded lead on motor.**

## J - 5 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 1 1/2 horsepower (HP). Two or three wire models up to 1 1/2 horsepower (HP).

### Two Wire Single Phase

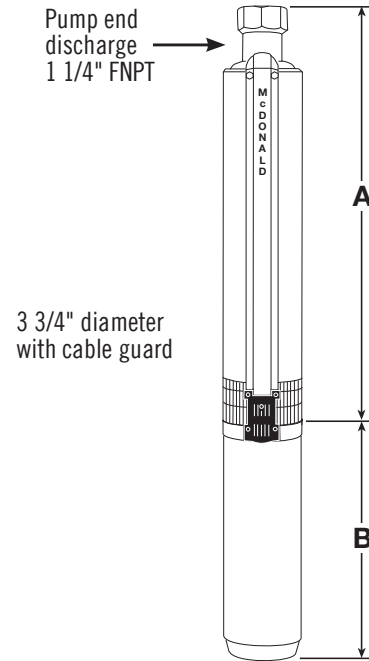
Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6622-010	23030J2A*	1/3	9	115	13.5"	13.4"	26.0
6622-009	23030J2*	1/3	9	230	13.5"	13.4"	26.3
6622-038	23050J2A	1/2	13	115	16.7"	13.4"	27.6
6622-037	23050J2	1/2	13	230	16.7"	13.0"	27.2
6622-061	23075J2	3/4	18	230	20.7"	13.8"	31.0
6622-077	23100J2	1	23	230	25.9"	16.8"	36.9
6622-003	23150J2	1 1/2	30	230	31.5"	18.5"	48.4

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6622-012	23030J3A*	1/3	9	115	13.5"	9.5"	28.0
6622-011	23030J3*	1/3	9	230	13.5"	9.5"	27.0
6622-040	23050J3A	1/2	13	115	16.7"	9.5"	31.3
6622-039	23050J3	1/2	13	230	16.7"	10.5"	31.3
6622-062	23075J3	3/4	18	230	20.7"	11.3"	37.4
6622-078	23100J3	1	23	230	25.9"	13.6"	43.0
6622-005	23150J3	1 1/2	30	230	31.5"	16.2"	31.3

### Three Wire\*\* Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6650-288	23150J3Z	1 1/2	30	230	31.5"	13.6"	41.8



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6622-008	23030J	1/3	9
6622-036	23050J	1/2	10
6622-060	23075J	3/4	12
6622-076	23100J	1	13
6622-007	23150J	1 1/2	18

\* All one-third horsepower pumps are furnished with one-half horsepower motors (and control boxes where applicable).

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

## Output - in Gallons Per Minute (Depth to Water)

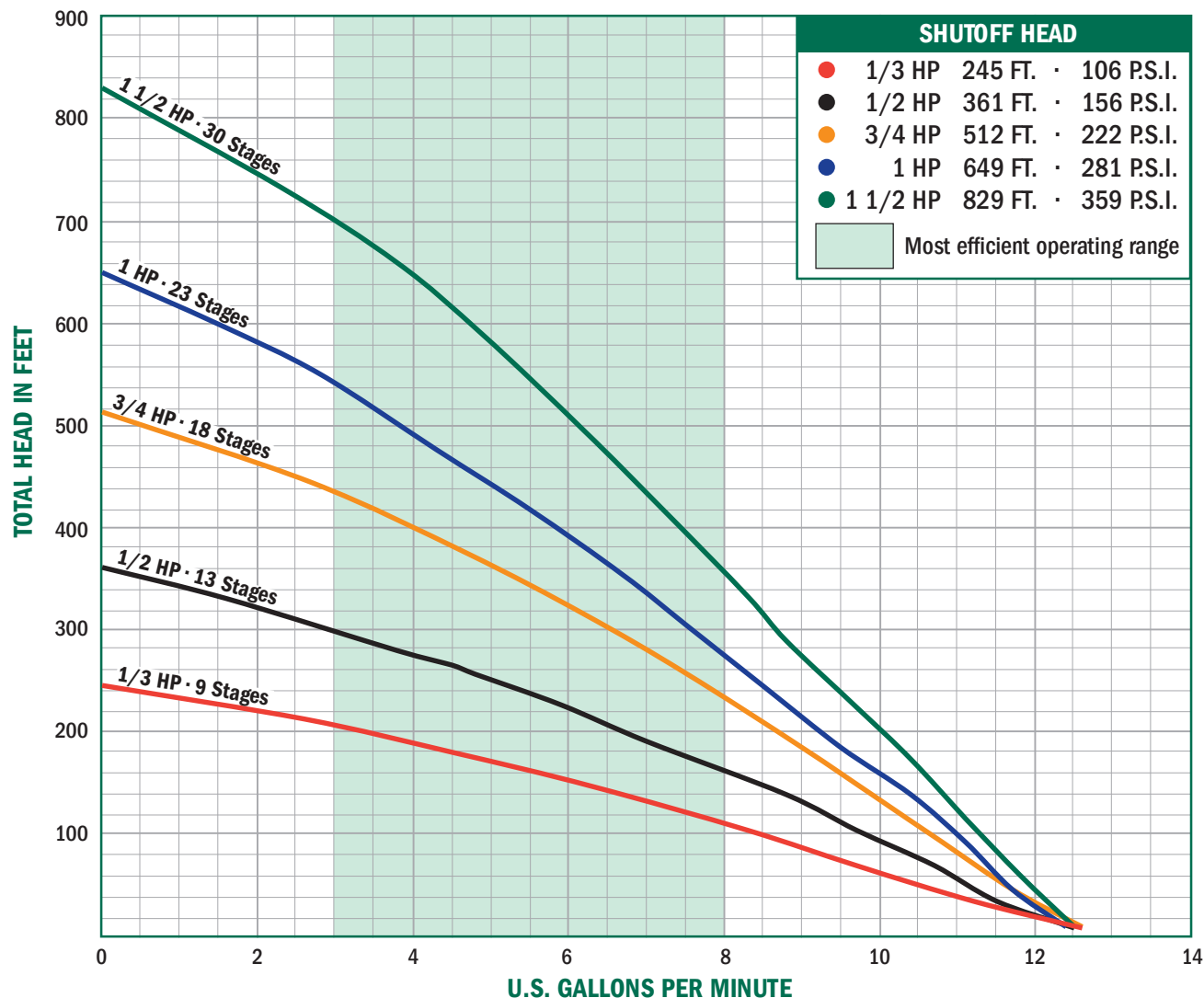
HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'
1/3	0	11.7	10.6	9.5	8.4	7.3	6.1	4.8	3.4	1.8
	30	8.6	7.5	6.4	5.1	3.8	2.2			
	40	7.6	6.4	5.2	3.9	2.3				
	50	6.5	5.3	4.0	2.5					

HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
1/2	0	11.9	11.2	10.5	9.8	9.1	8.4	7.6	6.8	6.0	5.0	4.1	3.0	1.8
	30	10.0	9.2	8.5	7.8	7.0	6.1	5.3	4.3	3.2	2.1			
	40	9.3	8.6	7.8	7.0	6.2	5.3	4.4	3.3	2.2				
	50	8.6	7.9	7.1	6.3	5.4	4.4	3.4	2.3					
60	7.9	7.2	6.3	5.5	4.5	3.5	2.3							

HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'
3/4	0	12.2	11.7	11.2	10.7	10.2	9.7	9.2	8.7	8.1	7.6	7.1	6.5	5.9	5.3	4.7	4.0	3.3	2.6
	30	10.8	10.3	9.8	9.3	8.8	8.3	7.7	7.2	6.6	6.1	5.5	4.9	4.2	3.5	2.7	1.9		
	40	10.3	9.8	9.3	8.8	8.3	7.8	7.2	6.7	6.1	5.5	4.9	4.3	3.6	2.8	2.0			
	50	9.9	9.4	8.9	8.3	7.8	7.3	6.7	6.2	5.6	4.9	4.3	3.6	2.9	2.0				
60	9.4	8.9	8.4	7.9	7.3	6.8	6.2	5.6	5.0	4.4	3.7	2.9	2.1						

FRICITION LOSSES IN RISER PIPE  
HAVE NOT BEEN CALCULATED

# J - 5 GPM



Submersible Pumps

1 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
	0	11.7	10.9	10.1	9.3	8.4	7.6	6.7	5.8	4.9	3.9	2.7	1.5
30	10.6	9.8	9.0	8.1	7.3	6.4	5.5	4.5	3.4	2.3			
40	10.2	9.4	8.6	7.7	6.9	6.0	5.0	4.0	2.9	1.7			
50	9.9	9.0	8.2	7.3	6.4	5.5	4.6	3.5	2.4				
60	9.5	8.6	7.8	6.9	6.0	5.1	4.1	3.0	1.8				

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'
	0	12.0	11.3	10.7	10.0	9.3	8.7	8.0	7.4	6.8	6.1	5.4	4.7	3.9	3.0	1.9
30	11.1	10.4	9.7	9.1	8.5	7.8	7.2	6.5	5.9	5.2	4.4	3.6	2.6	1.5		
40	10.8	10.1	9.4	8.8	8.2	7.5	6.9	6.2	5.6	4.8	4.0	3.1	2.1			
50	10.5	9.8	9.1	8.5	7.9	7.2	6.6	5.9	5.2	4.5	3.6	2.7	1.5			
60	10.1	9.5	8.8	8.2	7.6	6.9	6.3	5.6	4.9	4.1	3.2	2.2				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

## V - 7 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

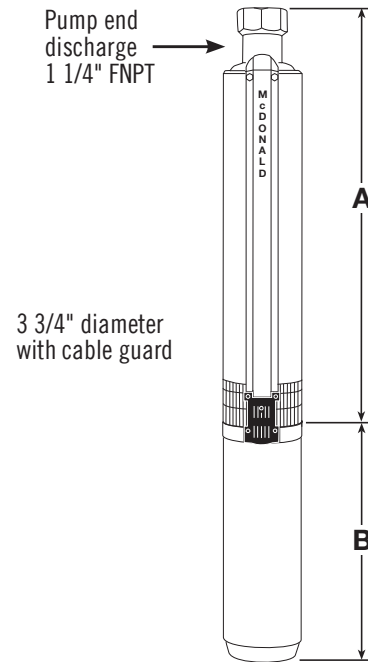
All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 2 horsepower (HP). Two wire models up to 1 1/2 and three wire models up to 2 horsepower (HP).

### Two Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6622-031	23030V2A*	1/3	6	115	11.1"	13.4"	25.1
6622-030	23030V2*	1/3	6	230	11.1"	13.4"	26.1
6622-055	23050V2A	1/2	9	115	13.48"	13.4"	25.7
6622-054	23050V2	1/2	9	230	13.48"	13.0"	28.0
6622-073	23075V2	3/4	12	230	15.92"	13.8"	28.8
6622-090	23100V2	1	16	230	19.11"	16.8"	40.0
6622-098	23150V2	1 1/2	21	230	23.58"	18.5"	45.0

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6622-033	23030V3A*	1/3	6	115	11.1"	9.5"	26.1
6622-032	23030V3*	1/3	6	230	11.1"	9.5"	27.1
6622-057	23050V3A	1/2	9	115	13.5"	9.5"	23.2
6622-056	23050V3	1/2	9	230	13.5"	10.5"	28.2
6622-074	23075V3	3/4	12	230	15.2"	11.3"	32.1
6622-091	23100V3	1	16	230	19.1"	13.6"	36.3
6622-099	23150V3	1 1/2	21	230	23.6"	16.2"	47.8
6622-108	23200V3	2	26	230	28.3"	16.2"	50.8



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	WT.
6622-029	23030V	1/3	9
6622-053	23050V	1/2	10
6622-072	23075V	3/4	13
6622-089	23100V	1	11
6622-097	23150V	1 1/2	16
6622-107	23200V	2	18

\* All one-third horsepower pumps are furnished with one-half horsepower motors (and control boxes where applicable).

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

### Output - in Gallons Per Minute (Depth to Water)

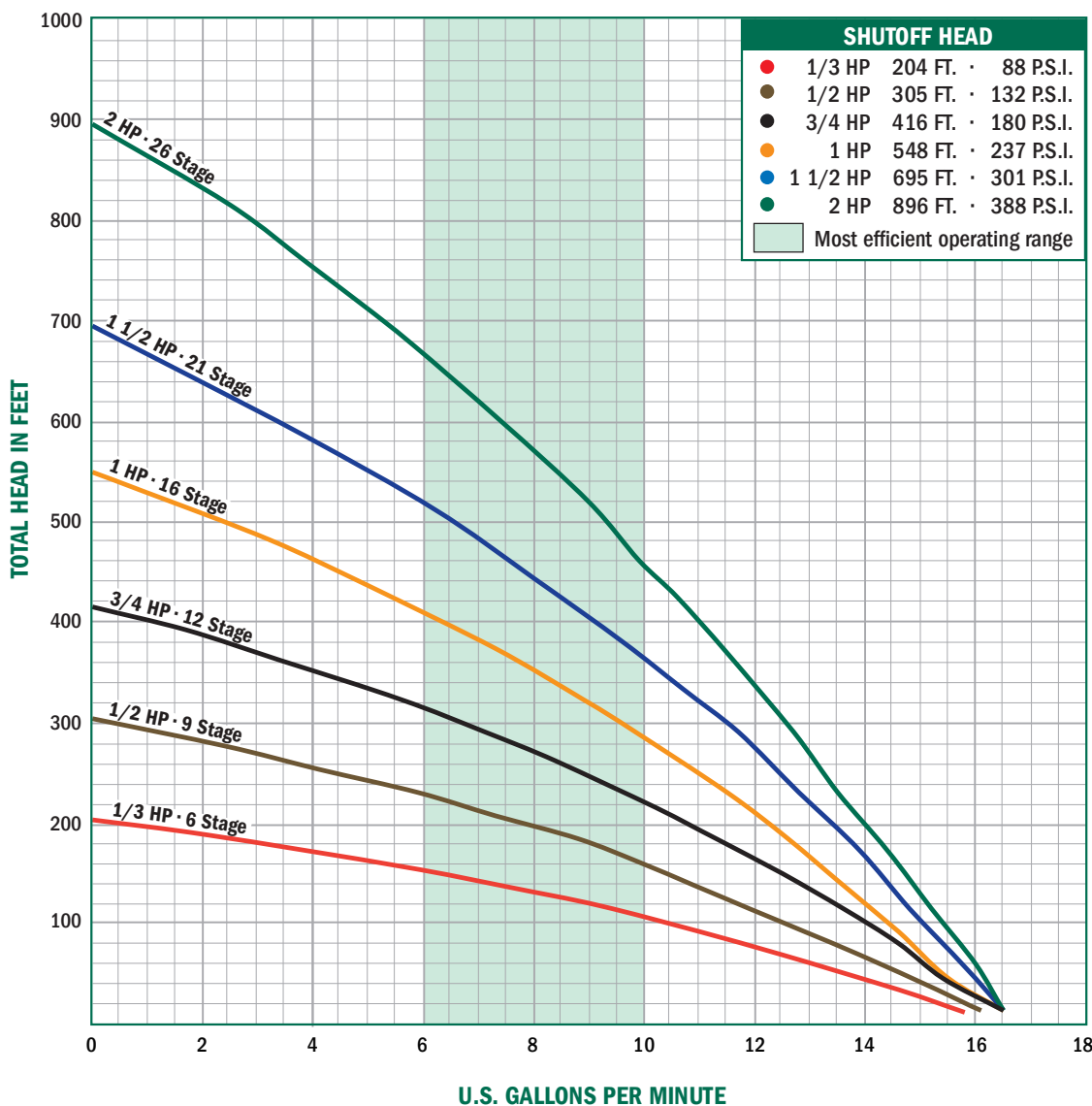
1/3 HP	PSI	25'	50'	75'	100'	125'	150'	175'
0	15.1	13.7	12.2	10.5	8.6	6.4	3.8	
30	10.9	9.0	6.9	4.4	1.3			
40	9.2	7.1	4.6	1.6				
50	7.2	4.8	1.9					

1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
0	15.6	14.6	13.6	12.6	11.5	10.4	9.2	7.8	6.3	4.5	2.5	
30	12.8	11.8	10.7	9.5	8.2	6.7	5.0	3.0				
40	11.9	10.8	9.6	8.3	6.8	5.1	3.1					
50	10.9	9.7	8.4	6.9	5.2	3.3						
60	9.8	8.5	7.0	5.4	3.4	1.3						

3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'
0	16.1	15.5	14.8	14.0	13.3	12.5	11.6	10.8	9.9	8.9	7.8	6.7	5.5	4.2	2.8	
30	14.2	13.4	12.7	11.8	11.0	10.1	9.1	8.1	7.0	5.8	4.5	3.1	1.5			
40	13.5	12.7	11.9	11.0	10.1	9.2	8.2	7.1	5.9	4.6	3.2	1.7				
50	12.8	12.0	11.1	10.2	9.3	8.2	7.2	6.0	4.7	3.3	1.8					
60	12.0	11.2	10.3	9.3	8.3	7.2	6.1	4.8	3.4	1.9						

FRICION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

# V - 7 GPM



Submersible Pumps

1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'	475'
	0	16.1	15.5	15.0	14.4	13.9	13.3	12.8	12.2	11.6	11.0	10.3	9.6	8.9	8.1	7.2	6.3	5.4	4.5	3.7
30	14.5	14.0	13.5	12.9	12.3	11.8	11.1	10.5	9.8	9.1	8.3	7.4	6.6	5.6	4.7	3.7	2.7			
40	14.0	13.5	12.9	12.4	11.8	11.2	10.5	9.9	9.1	8.3	7.5	6.6	5.7	4.7	3.8	2.8				
50	13.5	13.0	12.4	11.8	11.2	10.6	9.9	9.2	8.4	7.6	6.7	5.8	4.8	3.8	2.8					
60	13.0	12.5	11.9	11.3	10.6	10.0	9.2	8.5	7.6	6.8	5.8	4.9	3.9	2.9	1.9					

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'
	0	15.9	15.1	14.3	13.4	12.4	11.4	10.4	9.2	7.9	6.5	5.0	3.7	
30	14.8	13.9	13.0	12.1	11.0	9.9	8.7	7.4	5.9	4.4	2.7			
40	14.4	13.5	12.6	11.6	10.5	9.4	8.1	6.7	5.2	3.6	1.9			
50	14.0	13.1	12.1	11.1	10.0	8.8	7.5	6.0	4.5	2.8				
60	13.6	12.7	11.7	10.6	9.5	8.2	6.8	5.3	3.7	2.0				

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	
	0	16.1	15.4	14.7	14.0	13.3	12.6	11.8	11.0	10.2	9.3	8.4	7.4	6.4	5.3	4.1	2.9	1.5	
30	15.1	14.5	13.8	13.0	12.3	11.5	10.7	9.8	8.9	8.0	7.0	6.0	4.9	3.7	2.3				
40	14.8	14.1	13.4	12.7	11.9	11.1	10.3	9.4	8.5	7.6	6.5	5.5	4.3	3.1	1.7				
50	14.5	13.8	13.1	12.3	11.5	10.7	9.9	9.0	8.1	7.1	6.1	4.9	3.8	2.4					
60	14.2	13.5	12.7	12.0	11.2	10.3	9.5	8.6	7.6	6.6	5.6	4.4	3.2	1.8					

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

## K - 10 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horsepower (HP). Two wire models up to 1 1/2 and three wire models up to 5 horsepower (HP).

### Two Wire Single Phase

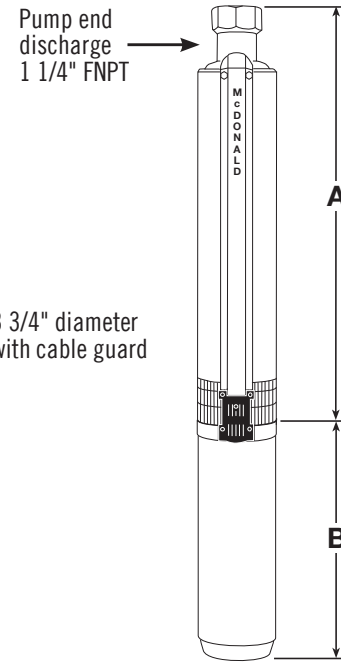
Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-034	23030K2A*	1/3	5	115	10.5"	13.4"	24.0
6650-033	23030K2*	1/3	5	230	10.5"	13.4"	23.7
6650-041	23050K2A	1/2	7	115	12.2"	13.4"	28.0
6650-040	23050K2	1/2	7	230	12.2"	13.0"	28.0
6650-047	23075K2	3/4	9	230	13.8"	13.8"	30.9
6650-051	23100K2	1	12	230	16.4"	16.8"	38.0
6650-055	23150K2	1 1/2	16	230	21.1"	18.5"	42.8

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-036	23030K3A*	1/3	5	115	10.5"	9.5"	21
6650-035	23030K3*	1/3	5	230	10.5"	9.5"	21
6650-043	23050K3A	1/2	7	115	12.2"	9.5"	28
6650-042	23050K3	1/2	7	230	12.2"	10.5"	28
6650-048	23075K3	3/4	9	230	13.8"	11.3"	31
6650-052	23100K3	1	12	230	16.4"	13.6"	33
6650-056	23150K3	1 1/2	16	230	21.1"	16.2"	43
6650-059	23200K3	2	20	230	24.5"	16.2"	46
6650-062	23300K3	3	26	230	29.6"	21.4"	70
6650-293	23500K3	5	33	230	35.5"	26.9"	978

### Three Wire\*\* Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-289	23150K3Z	1 1/2	16	230	21.1"	13.6"	41
6650-307	23150K3Y	1 1/2	16	460	21.1"	13.6"	37
6650-290	23200K3Z	2	20	230	24.5"	15.4"	50
6650-291	23300K3Z	3	26	230	29.6"	19.8"	58
6650-292	23500K3Z	5	33	230	35.5"	24.2"	76



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	WT.
6650-032	23030K	1/3	7
6650-039	23050K	1/2	7
6650-046	23075K	3/4	8
6650-050	23100K	1	9
6650-054	23150K	1 1/2	11
6650-058	23200K	2	14
6650-061	23300K	3	16
6650-263	23500K	5	18

\* All one-third horsepower pumps are furnished with one-half horsepower motors (and control boxes where applicable).

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

### Output - in Gallons Per Minute (Depth to Water)

HP	PSI	25'	50'	75'	100'	125'	150'	175'
1/3	0	18.78	16.62	14.27	11.68	8.75	5.31	0.93
	30	12.29	9.45	6.16	2.06			
	40	9.68	6.43	2.42				
	50	6.70	2.76					
	60	3.10						

HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
1/2	0	19.90	18.49	16.99	15.40	13.69	11.84	9.79	7.49	4.78	1.
	30	15.77	14.09	12.27	10.28	8.04	5.44	2.21			
	40	14.22	12.42	10.44	8.22	5.66	2.49				
	50	12.56	10.60	8.40	5.87	2.76					
	60	10.75	8.58	6.08	3.03						

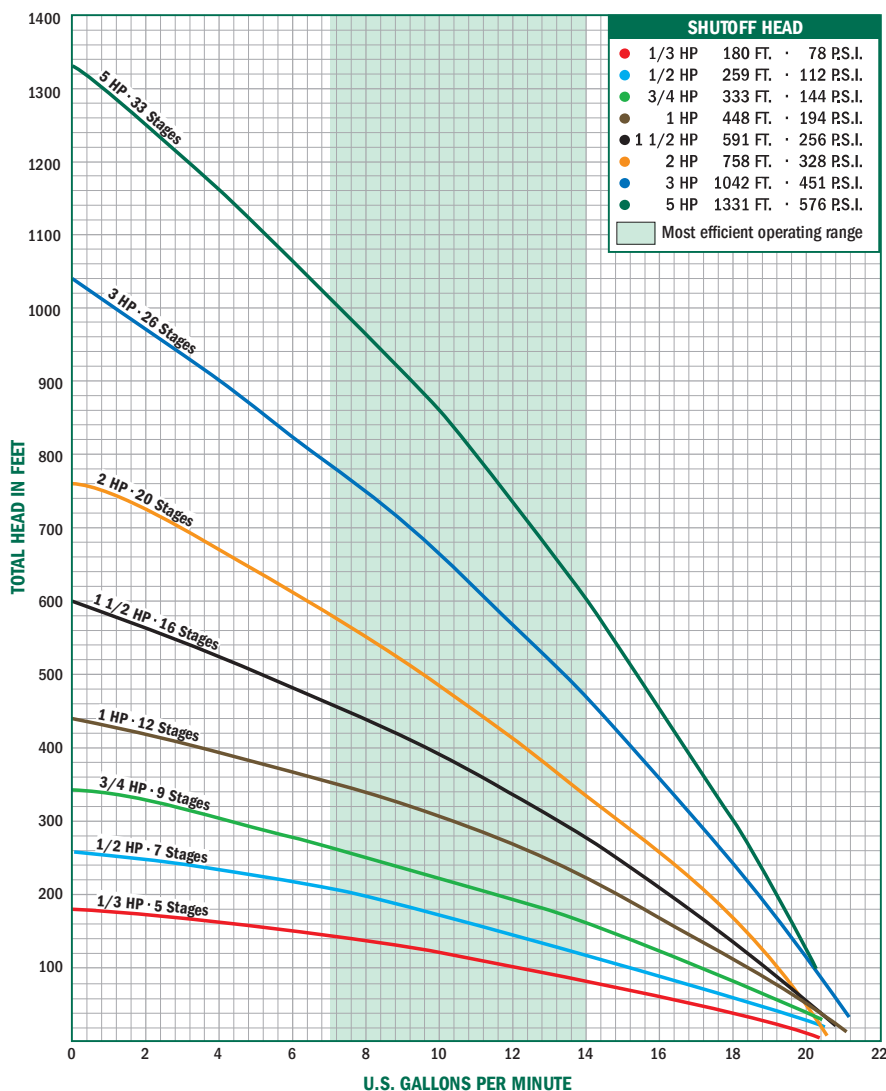
HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
3/4	0	20.36	19.26	18.12	16.93	15.67	14.35	12.95	11.45	9.83	8.05	6.06	3.75	0.89
	30	17.20	15.97	14.66	13.28	11.80	10.21	8.47	6.54	4.31	1.61			
	40	16.06	14.76	13.39	11.92	10.34	8.61	6.69	4.49	1.84				
	50	14.86	13.49	12.03	10.46	8.75	6.85	4.67	2.07					
	60	13.60	12.15	10.59	8.89	7.00	4.85	2.29						

HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
1	0	20.86	20.05	19.22	18.36	17.47	16.55	15.60	14.61	13.57	12.48	11.33	10.10	8.79	7.37	5.81	4.06	2.00
	30	18.56	17.68	16.77	15.82	14.84	13.81	12.73	11.59	10.39	9.10	7.71	6.18	4.48	2.51	0.09		
	40	17.75	16.84	15.89	14.91	13.89	12.81	11.68	10.48	9.20	7.82	6.30	4.61	2.67	0.29			
	50	16.91	15.97	14.99	13.97	12.90	11.77	10.58	9.30	7.93	6.42	4.75	2.83	0.50				
	60	16.04	15.06	14.05	12.98	11.86	10.67	9.40	8.04	6.54	4.89	2.99	0.70					

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Submersible Pumps

# K - 10 GPM



Submersible Pumps

## Output - in Gallons Per Minute (Depth to Water) - Continued

PSI	1 1/2 HP										
	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'
0	20.18	18.95	17.66	16.31	14.87	13.34	11.69	9.89	7.88	5.58	2.80
30	18.46	17.15	15.76	14.29	12.72	11.01	9.14	7.03	4.58	1.51	
40	17.86	16.52	15.09	13.58	11.95	10.17	8.20	5.95	3.27		
50	17.25	15.87	14.41	12.84	11.15	9.29	7.20	4.78	1.78		
60	16.62	15.21	13.70	12.08	10.31	8.36	6.14	3.49	0.02		

PSI	2 HP														
	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'
0	19.85	18.89	17.89	16.85	15.78	14.66	13.49	12.26	10.96	9.59	8.11	6.51	4.75	2.77	0.46
30	18.51	17.49	16.44	15.35	14.21	13.02	11.77	10.44	9.03	7.51	5.85	4.02	1.93		
40	18.04	17.01	15.94	14.83	13.67	12.45	11.17	9.80	8.34	6.76	5.03	3.09	0.84		
50	17.57	16.52	15.44	14.30	13.11	11.87	10.55	9.14	7.63	5.98	4.16	2.10			
60	17.09	16.03	14.92	13.76	12.55	11.27	9.91	8.46	6.89	5.17	3.25	1.02			

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

PSI	3 HP																			
	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'
0	21.05	20.27	19.48	18.67	17.84	16.99	16.11	15.22	14.30	13.35	12.36	11.35	10.30	9.20	8.05	6.85	5.59	4.24	2.81	1.2
30	19.97	19.17	18.35	17.51	16.65	15.77	14.87	13.93	12.97	11.98	10.95	9.88	8.76	7.60	6.37	5.08	3.70	2.23	0.62	
40	19.60	18.79	17.96	17.12	16.25	15.36	14.44	13.49	12.52	11.51	10.46	9.37	8.23	7.04	5.78	4.45	3.03	1.50		
50	19.23	18.41	17.58	16.72	15.84	14.94	14.01	13.05	12.05	11.03	9.96	8.85	7.69	6.47	5.18	3.81	2.34	0.75		
60	18.85	18.03	17.18	16.32	15.43	14.51	13.57	12.59	11.58	10.54	9.45	8.32	7.13	5.88	4.56	3.14	1.62			

PSI	5 HP																										
	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'	1050'	1100'	1150'	1200'	1250'	1300'	
0	20.96	20.39	19.81	19.22	18.62	18.01	17.38	16.74	16.09	15.42	14.74	14.04	13.32	12.58	11.82	11.04	10.22	9.38	8.51	7.60	6.64	5.64	4.58	3.45	2.24	0.93	
30	20.17	19.59	18.99	18.39	17.77	17.14	16.49	15.84	15.16	14.47	13.77	13.04	12.29	11.52	10.73	9.90	9.05	8.16	7.23	6.26	5.24	4.15	3.00	1.75	0.39		
40	19.90	19.31	18.71	18.10	17.48	16.84	16.19	15.53	14.85	14.15	13.43	12.70	11.94	11.16	10.35	9.51	8.64	7.74	6.79	5.80	4.75	3.63	2.43	1.14			
50	19.63	19.04	18.43	17.82	17.19	16.54	15.89	15.21	14.53	13.82	13.09	12.35	11.58	10.79	9.97	9.11	8.23	7.31	6.34	5.32	4.24	3.09	1.85	0.50			
60	19.36	18.76	18.15	17.53	16.89	16.24	15.58	14.90	14.20	13.49	12.75	12.00	11.22	10.41	9.58	8.71	7.81	6.86	5.87	4.83	3.72	2.53	1.24				



## L - 15 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horsepower (HP). Two wire models up to 1 1/2 and three wire models up to 5 horsepower (HP).

### Two Wire Single Phase

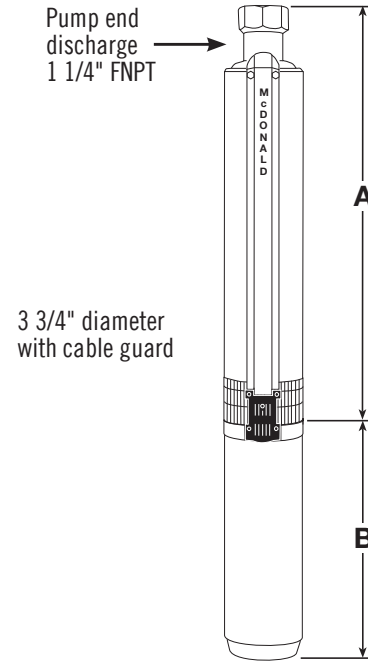
Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-166	23030L2A*	1/3	5	115	12.0"	13.4"	24
6650-165	23030L2*	1/3	5	230	12.0"	13.4"	24
6650-173	23050L2A	1/2	6	115	13.1"	13.4"	25
6650-172	23050L2	1/2	6	230	13.1"	13.0"	24
6650-179	23075L2	3/4	8	230	15.3"	13.8"	28
6650-183	23100L2	1	10	230	17.4"	16.8"	32
6650-187	23150L2	1 1/2	13	230	20.6"	18.5"	41

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-168	23030L3A*	1/3	5	115	12.0"	9.5"	27
6650-167	23030L3*	1/3	5	230	12.0"	9.5"	27
6650-175	23050L3A	1/2	6	115	13.1"	9.5"	27
6650-174	23050L3	1/2	6	230	13.1"	10.5"	28
6650-180	23075L3	3/4	8	230	15.3"	11.3"	31
6650-184	23100L3	1	10	230	17.4"	13.6"	35
6650-188	23150L3	1 1/2	13	230	20.6"	16.2"	44
6650-191	23200L3	2	17	230	24.9"	16.2"	50
6650-194	23300L3	3	23	230	32.7"	21.4"	64
6650-294	23500L3	5	35	230	45.6"	26.9"	102

### Three Wire\*\* Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6637-035	23150L3Z	1 1/2	13	230	20.6"	13.6"	39
6650-299	23200L3Z	2	17	230	24.9"	15.4"	48
6650-300	23300L3Z	3	23	230	32.7"	19.8"	56
6650-301	23500L3Z	5	35	230	45.6"	24.2"	81



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	WT.
6650-164	23030L	1/3	7
6650-171	23050L	1/2	7
6650-178	23075L	3/4	8
6650-182	23100L	1	9
6650-186	23150L	1 1/2	10
6650-190	23200L	2	12
6650-193	23300L	3	15
6650-196	23500L	5	22

\* All one-third horsepower pumps are furnished with one-half horsepower motors (and control boxes where applicable).

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

### Output - in Gallons Per Minute (Depth to Water)

1/3 HP	PSI	25'	50'	75'	100'	125'
	0	27.82	24.66	21.05	16.70	10.79
	30	17.79	12.38			
	40	12.86	2.69			
	50	4.29				

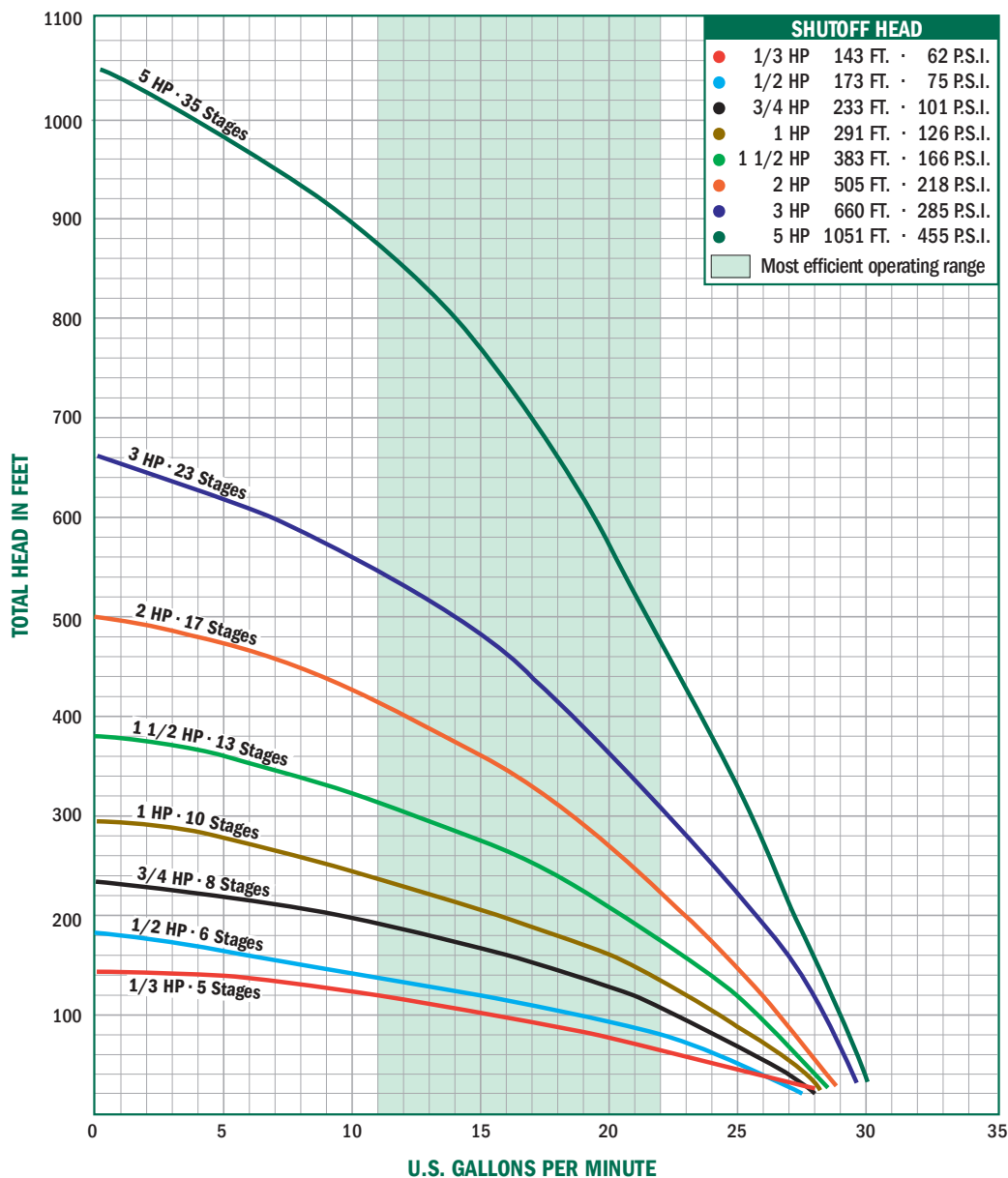
1/2 HP	PSI	25'	50'	75'	100'	125'	150'
	0	28.28	25.58	22.58	19.18	15.14	9.84
	30	20.00	16.14	11.23	2.99		
	40	16.46	11.66	3.99			
	50	12.08	4.85				
60	5.63						

3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'
	0	28.58	26.69	24.66	22.46	20.05	17.33	14.17	10.21	4.08
	30	22.98	20.62	17.98	14.94	11.22	5.91			
	40	20.81	18.19	15.19	11.54	6.43				
	50	18.40	15.44	11.85	6.92					
60	15.68	12.15	7.38							

1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	300'
	0	28.92	27.42	25.84	24.16	22.37	20.44	18.33	15.97	13.26	9.96	5.33
	30	24.55	22.79	20.89	18.83	16.53	13.92	10.78	6.60			
	40	22.93	21.04	18.99	16.72	14.13	11.05	6.99				
	50	21.19	19.15	16.90	14.34	11.31	7.36					
60	19.31	17.08	14.55	11.56	7.71	0.50						

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

# L - 15 GPM



Submersible Pumps

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'
	0	28.02	25.72	23.20	20.39	17.15	13.20	7.62
30	24.78	22.16	19.20	15.74	11.35	4.06		
40	23.60	20.84	17.68	13.87	8.68			
50	22.37	19.44	16.03	11.73	4.93			
60	21.06	17.94	14.19	9.16				

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'
	0	28.57	26.81	24.93	22.92	20.74	18.34	15.61	12.40	8.28	0.77
30	26.10	24.18	22.11	19.84	17.33	14.44	10.96	6.18			
40	25.23	23.24	21.09	18.72	16.05	12.93	9.00	2.66			
50	24.33	22.27	20.02	17.53	14.68	11.25	6.63				
60	23.40	21.26	18.91	16.27	13.19	9.34	3.38				

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'
	0	29.55	28.24	26.88	25.45	23.93	22.33	20.60	18.73	16.67	14.34	11.60	8.12	2.19
30	27.72	26.34	24.87	23.33	21.67	19.90	17.96	15.80	13.34	10.38	6.38			
40	27.09	25.67	24.17	22.58	20.87	19.02	16.99	14.71	12.05	8.72	3.56			
50	26.44	24.99	23.45	21.80	20.04	18.11	15.98	13.54	10.63	6.75				
60	25.78	24.29	22.70	21.01	19.17	17.16	14.90	12.27	9.01	4.12				

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'
	0	29.70	28.91	28.10	27.27	26.42	25.54	24.62	23.68	22.69	21.67	20.59	19.47	18.27	17.00	15.63	14.14	12.49	10.61	8.38	5.43
30	28.60	27.79	26.95	26.08	25.19	24.26	23.30	22.30	21.26	20.17	19.01	17.79	16.48	15.07	13.53	11.80	9.80	7.36	3.85		
40	28.23	27.40	26.55	25.67	24.76	23.82	22.85	21.83	20.76	19.64	18.46	17.20	15.85	14.38	12.75	10.92	8.75	5.95	0.69		
50	27.85	27.01	26.15	25.26	24.33	23.38	22.38	21.34	20.25	19.10	17.89	16.59	15.18	13.65	11.94	9.97	7.57	4.20			
60	27.47	26.62	25.74	24.83	23.90	22.92	21.91	20.84	19.73	18.55	17.30	15.95	14.49	12.88	11.07	8.93	6.20	1.48			

## P - 20 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horsepower (HP). Two wire models up to 1 1/2 and three wire models up to 5 horsepower (HP).

### Two Wire Single Phase

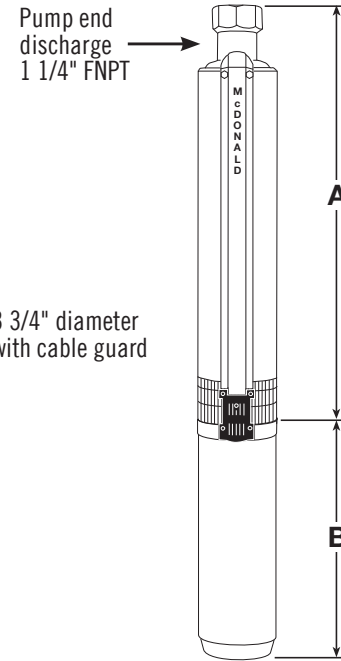
Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-199	23050P2A	1/2	5	115	12.02"	13.4"	25
6650-198	23050P2	1/2	5	230	12.02"	13.0"	27
6650-205	23075P2	3/4	7	230	14.17"	13.8"	28
6650-209	23100P2	1	9	230	16.32"	16.8"	38
6650-213	23150P2	1 1/2	12	230	19.54"	18.5"	41

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-201	23050P3A	1/2	5	115	12.02"	9.5"	27
6650-200	23050P3	1/2	5	230	12.02"	10.5"	27
6650-206	23075P3	3/4	7	230	14.17"	11.3"	30
6650-210	23100P3	1	9	230	16.32"	13.6"	34
6650-214	23150P3	1 1/2	12	230	19.54"	16.2"	43
6650-217	23200P3	2	14	230	21.69"	16.2"	49
6650-220	23300P3	3	20	230	29.50"	21.4"	63
6650-223	23500P3	5	32	230	42.38"	26.9"	99

### Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-302	23150P3Z	1 1/2	12	230	19.5"	13.6"	40
6622-139	23200P3Z	2	14	230	21.7"	15.4"	45
6622-140	23300P3Z	3	20	230	29.5"	19.8"	53
6650-226	23500P3Z	5	32	230	42.4"	24.2"	78
6650-225	23500P3Y	5	32	460	42.4"	24.2"	76



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	WT.
6650-197	23050P	1/2	6
6650-204	23075P	3/4	8
6650-208	23100P	1	9
6650-212	23150P	1 1/2	10
6650-216	23200P	2	11
6650-219	23300P	3	14
6650-222	23500P	5	22

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

### Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'	125'
	0	32.34	28.61	24.35	19.26	12.48
	30	20.53	14.28	2.68		
	40	14.83	4.36			
	50	5.68				

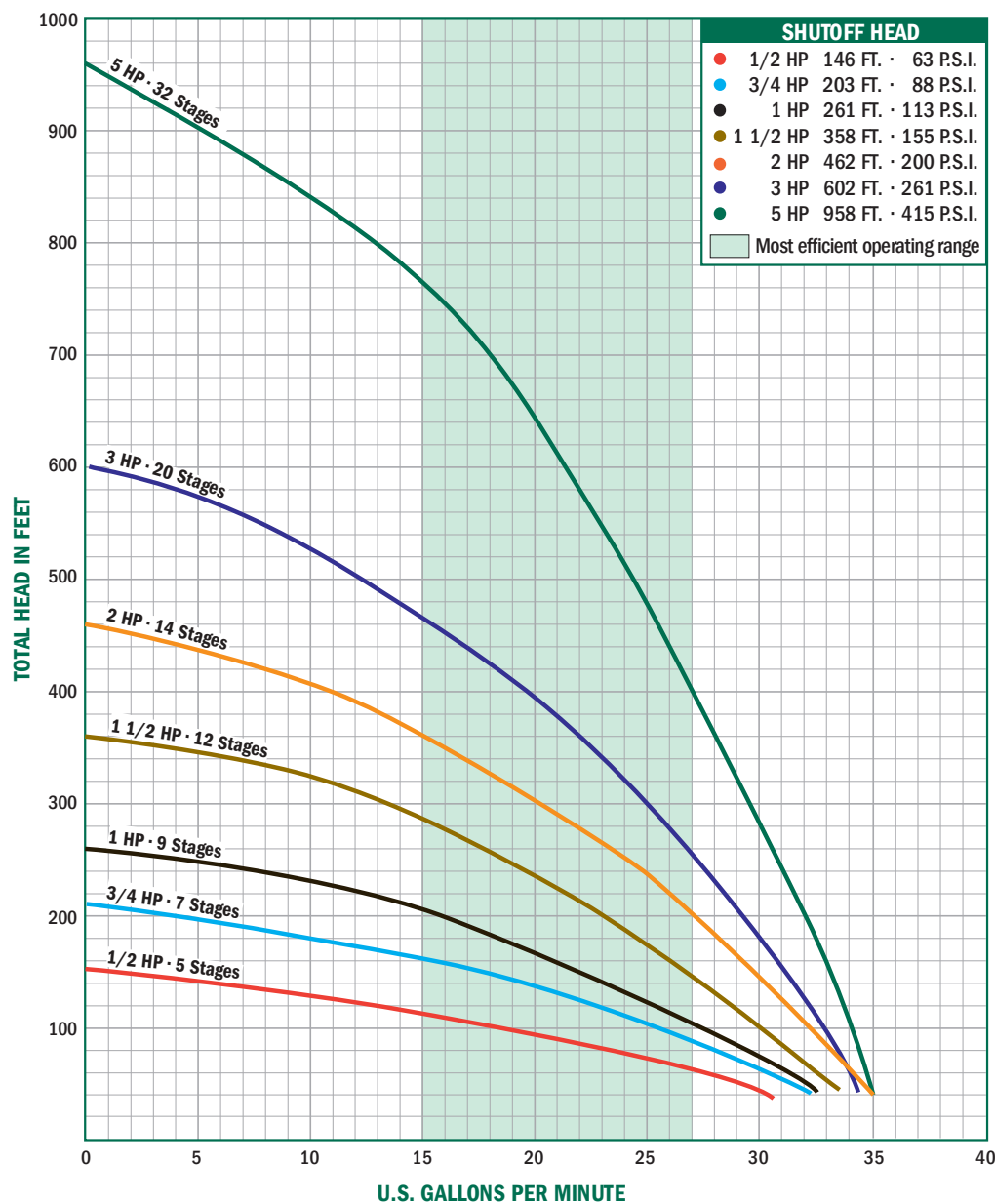
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
	0	32.36	29.82	27.06	24.01	20.58	16.54	11.39	2.53
	30	24.74	21.40	17.53	12.71	5.44			
	40	21.67	17.85	13.13	6.20				
	50	18.16	13.54	6.91					
	60	13.93	7.56						

1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
	0	33.30	31.39	29.36	27.19	24.84	22.26	19.37	16.02	11.88	5.72
	30	27.70	25.39	22.87	20.06	16.84	12.92	7.49			
	40	25.57	23.07	20.29	17.10	13.26	8.01				
	50	23.27	20.51	17.36	13.58	8.50					
60	20.73	17.62	13.90	8.97							

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'
	0	32.95	29.95	26.64	22.90	18.50	12.88	3.03
	30	28.71	25.26	21.30	16.53	10.04		
	40	27.17	23.50	19.23	13.86	5.38		
	50	25.53	21.62	16.93	10.65			
60	23.80	19.58	14.33	6.32				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

# P - 20 GPM



Submersible Pumps

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'
	0	34.88	32.45	29.85	27.04	23.94	20.46	16.41	11.33
30	31.47	28.79	25.88	22.65	18.98	14.61	8.85		
40	30.26	27.48	24.43	21.02	17.07	12.20	5.06		
50	29.00	26.11	22.91	19.28	14.97	9.38			
60	27.70	24.68	21.30	17.40	12.62	5.79			

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'
	0	34.31	32.64	30.88	29.03	27.05	24.92	22.61	20.06	17.16	13.72	9.23
30	31.97	30.18	28.28	26.25	24.06	21.66	18.99	15.91	12.16	6.88		
40	31.15	29.31	27.36	25.26	22.98	20.47	17.63	14.29	10.02	2.58		
50	30.32	28.43	26.41	24.23	21.85	19.20	16.16	12.48	7.39			
60	29.46	27.51	25.42	23.16	20.67	17.86	14.57	10.40	3.55			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'
	0	35.14	34.10	33.04	31.94	30.80	29.62	28.40	27.12	25.79	24.38	22.90	21.32	19.62	17.78	15.74	13.43	10.69	7.15	.01
30	33.70	32.62	31.50	30.35	29.16	27.91	26.61	25.25	23.82	22.30	20.68	18.93	17.02	14.88	12.43	9.46	5.32			
40	33.20	32.11	30.98	29.80	28.59	27.32	25.99	24.60	23.13	21.56	19.89	18.07	16.06	13.80	11.15	7.77	2.10			
50	32.70	31.59	30.44	29.25	28.01	26.71	25.36	23.93	22.42	20.80	19.07	17.17	15.06	12.64	9.81	5.71				
60	32.19	31.06	29.89	28.68	27.42	26.10	24.71	23.24	21.69	20.02	18.21	16.22	13.98	11.37	8.07	2.79				

## M - 25 GPM

A.Y. McDonald offers a full line of stainless steel submersible pumps built for years of trouble free operation, with high-efficiency impellers and diffusers. These submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, and stainless steel shaft and coupling.

All Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horsepower (HP). Two wire models up to 1 1/2 and three wire models up to 5 horsepower (HP).

### Two Wire Single Phase

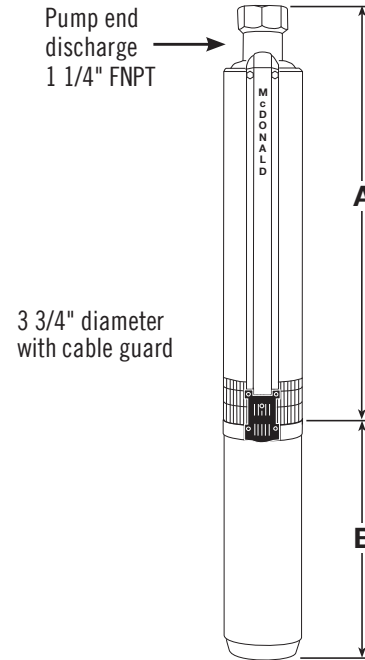
Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-230	23050M2A	1/2	4	115	10.9"	13.4"	24
6650-229	23050M2	1/2	4	230	10.9"	13.0"	24
6650-236	23075M2	3/4	5	230	12.0"	13.8"	27
6650-240	23100M2	1	7	230	14.2"	16.8"	36
6650-244	23150M2	1 1/2	9	230	16.3"	18.5"	40

### Three Wire\*\* Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6650-232	23050M3A	1/2	4	115	10.9"	9.5"	27
6650-231	23050M3	1/2	4	230	10.9"	10.5"	27
6650-237	23075M3	3/4	5	230	12.0"	11.3"	30
6650-241	23100M3	1	7	230	14.2"	13.6"	34
6650-245	23150M3	1 1/2	9	230	16.3"	16.2"	42
6650-248	23200M3	2	12	230	19.5"	16.2"	48
6650-251	23300M3	3	16	230	23.8"	21.4"	60
6650-254	23500M3	5	25	230	34.9"	26.9"	95

### Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	WT.
6637-021	23150M3Z	1 1/2	9	230	16.3"	13.6"	39
6639-031	23150M3Y	1 1/2	9	460	16.3"	13.6"	37
6637-023	23200M3Z	2	12	230	19.5"	15.4"	44
6639-033	23200M3Y	2	12	460	19.5"	15.4"	44
6637-025	23300M3Z	3	16	230	23.8"	19.8"	50
6639-035	23300M3Y	3	16	460	23.8"	19.08"	50
6650-257	23500M3Z	5	25	230	34.9"	24.2"	74
6650-256	23500M3Y	5	25	460	34.9"	24.2"	73



### 4" Stainless Steel Pump Ends

Part No.	Model No.	HP	WT.
6650-228	23050M	1/2	7
6650-235	23075M	3/4	7
6650-239	23100M	1	8
6650-243	23150M	1 1/2	9
6650-247	23200M	2	10
6650-250	23300M	3	11
6650-253	23500M	5	18

\*\* All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

### Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'
	0	34.97	29.23	22.43	13.64
	30	15.93	2.93		
	40	4.38			

3/4 HP	PSI	25'	50'	75'	100'	125'	150'
	0	36.08	31.97	27.33	21.88	14.91	2.74
	30	23.22	16.71	6.80			
	40	17.27	7.85				
	50	8.81					

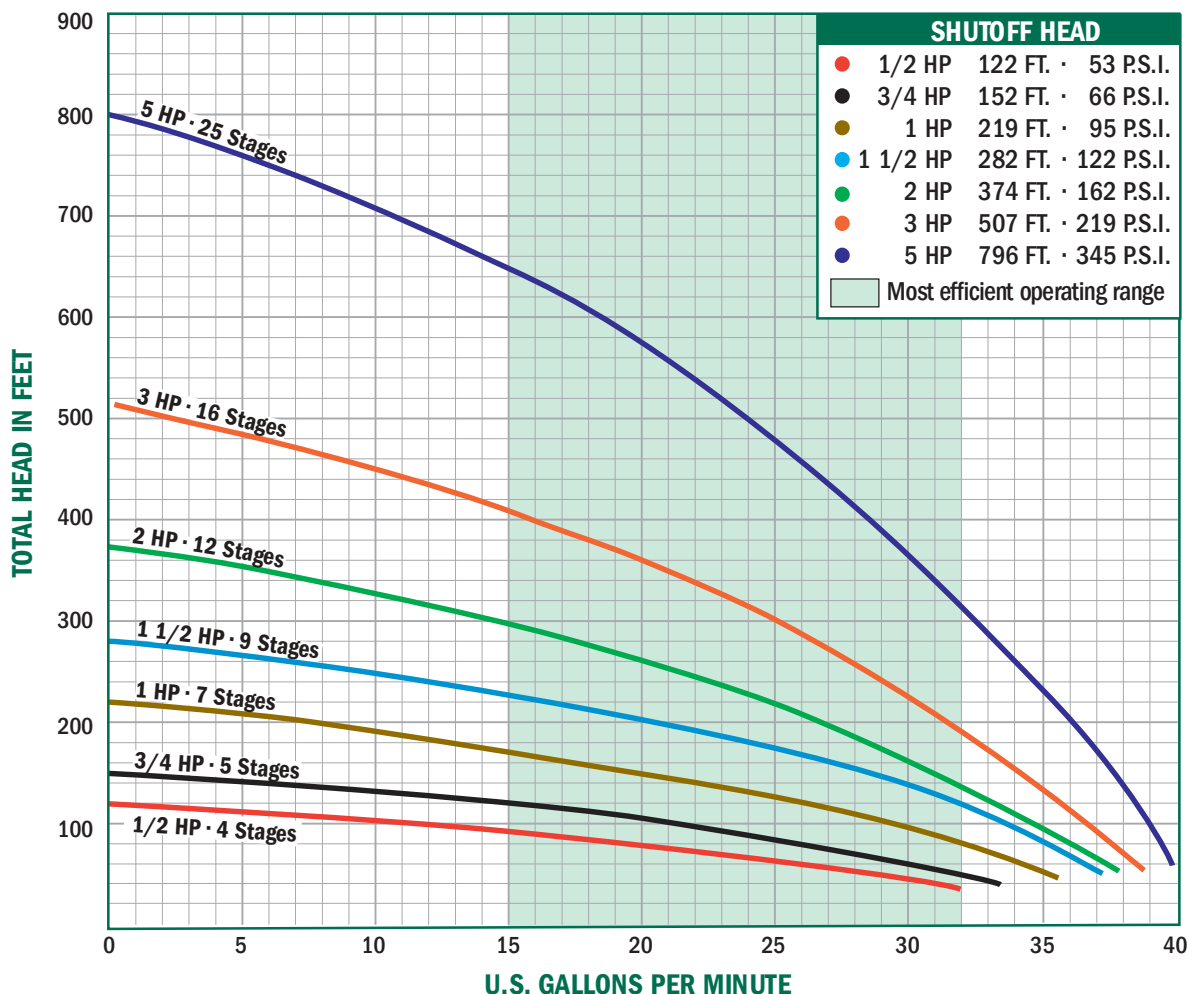
1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
	0	38.23	35.39	32.34	29.02	25.34	21.13	16.10	9.38
	30	29.81	26.22	22.15	17.35	11.16			
	40	26.50	22.48	17.75	11.71	1.28			
	50	22.80	18.14	12.24	2.61				
	60	18.53		3.73					

1 1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
	0	40.00	37.82	35.52	33.08	30.47	27.63	24.52	21.01	16.91	11.76	3.56
	30	33.65	31.08	28.30	25.26	21.85	17.91	13.07	6.06			
	40	31.28	28.52	25.50	22.13	18.24	13.49	6.76				
	50	28.74	25.74	22.40	18.56	13.90	7.42					
	60	25.98		18.87	14.29	8.04						

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Submersible Pumps

# M - 25 GPM



Submersible Pumps

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'
	0	38.07	34.66	30.92	26.74	21.91	15.98	7.38
30	33.26	29.37	24.97	19.79	13.16	1.33		
40	31.52	27.42	22.70	16.98	9.04			
50	29.68	25.33	20.23	13.75	2.92			
60	27.75	23.09	17.47	9.80				

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'
	0	39.30	36.84	34.22	31.42	28.38	25.02	21.23	16.75	11.09	1.27
30	35.85	33.16	30.28	27.12	23.62	19.61	14.78	8.24			
40	34.63	31.86	28.86	25.55	21.84	17.51	12.08	3.58			
50	33.38	30.50	27.37	23.90	19.94	15.19	8.85				
60	32.08	29.09	25.82	22.14	17.87	12.56	4.51				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'
	0	40.4	38.9	37.4	35.8	34.1	32.4	30.6	28.6	26.5	24.2	21.6	18.7	15.2	11.0	5.8
30	38.3	36.8	35.2	33.5	31.7	29.8	27.8	25.6	23.2	20.5	17.4	13.7	9.2	3.5		
40	37.6	36.0	34.4	32.7	30.9	28.9	26.8	24.5	22.0	19.1	15.8	11.7	6.7			
50	36.9	35.3	33.6	31.9	30.0	28.0	25.8	23.4	20.7	17.7	14.0	9.5				
60	36.2	34.5	32.8	31.0	29.1	27.0	24.7	22.2	19.4	16.1	12.1	7.1				