



Submersible Pumps



Submersible Pumps

Pump Catalog - January 2019

MORE THAN A BRAND. WE'RE A FAMILY.

21000 Series

A.Y. McDonald offers a full line of four inch submersibles ranging from 1/3 through 5 horsepower, with flow rates ranging from 5 to 25 GPM. Our 21000 submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 GPM models.

Powered by NEMA approved A.Y. McDonald stainless steel motors.

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

Discharge Casting

No-Lead Brass Alloy

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.

- 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.
- Non-corrosive in-take screen
- Cutaway illustrates features and is not indicative of specific model performance.

Check Valve

Acetal check valve poppet and seal housing, Buna-N O-ring, and stainless steel washer head retention screw. Threaded for easy installation or removal. Working pressure of 400 PSI.

Discharge Bearing

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

A.Y. McDonald uses it's **time proven captured stack design**. The captured stack design incorporates sand notches into the diffusers, which has proven, over time, to keep sand flowing thru the stack.

Polished Stainless Steel Shell

Heavy duty and threaded at both ends for easy field service.

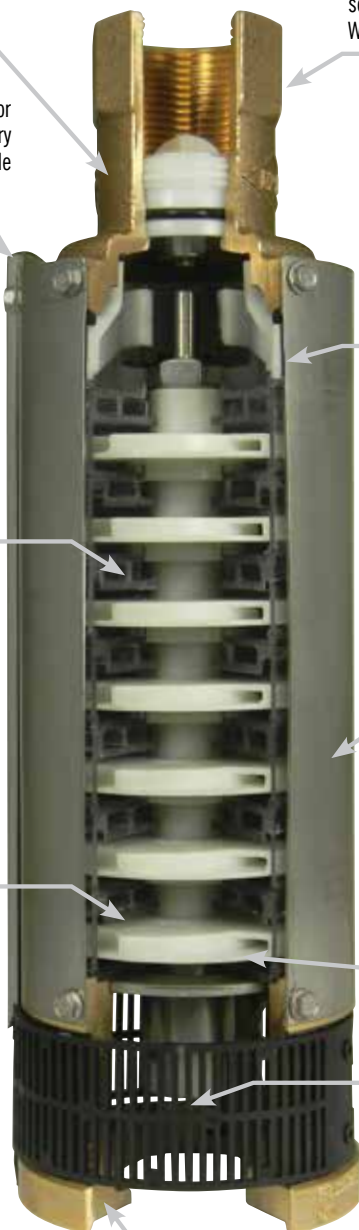
Shaft

7/16" 300 series stainless steel, hex design for positive impeller drive. Each shaft individually measured for straightness with strict tolerances.

Stainless steel motor coupling.

Motor Bracket

No-Lead Brass Alloy



How to Order 4" Submersible Pumps

Order by Model Number - Example: 21050K3A

21

Pump Model

21 - No-Lead Brass
22 - Thermoplastic
23 - Domestic Stainless Steel
24 - Stainless Steel

050

Horsepower

030 - 1/3 HP
050 - 1/2 HP
075 - 3/4 HP
100 - 1 HP
150 - 1 1/2 HP
200 - 2 HP
300 - 3 HP
500 - 5 HP

K

Series

J Series - 5 GPM
V Series - 7 GPM
K Series - 10 GPM
L Series - 15 GPM
P Series - 20 GPM
M Series - 25 GPM

3

Wires

Two wire or
Three wire

A

Other

Leave blank for 230V
60 HZ, Single Phase (Standard)
A - 115V Single Phase

Other Options - Contact Factory

Z - 230V Three Phase
Y - 460V Three Phase

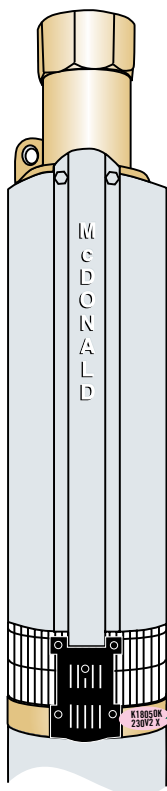
Controls

Leave blank for
Control (Standard)
LB - Less box
(Single Phase Option)
LS - Less starter
(Three Phase Option)

Model 21050K3A is a 1/2 HP, three wire, 115 volt, single phase no-lead brass 4" submersible pump, designed to pump in the 10 GPM range.

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 ground lead on motor.



Locating the code number on the pump

EXAMPLE

Date Code	Motor HP	Pump Series
K18	050	K
Voltage	No. of Power Leads	Assembler's Code
230V	2	X

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

- Date of manufacture
- Motor HP
- Pump Series
- Voltage
- Number of power leads
- Assembler's code

J Series - 5 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

All J Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

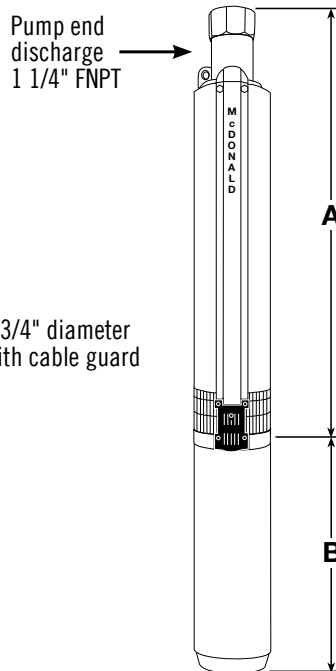
Model No.	HP	Stages	Volt	A	B	Wt.
21030J2A*	1/3	9	115	13.48"	9.53"	26
21030J2*	1/3	9	230	13.48"	9.53"	26
21050J2A	1/2	13	115	16.68"	9.53"	30
21050J2	1/2	13	230	16.68"	9.53"	30
21075J2	3/4	18	230	20.67"	10.66"	36
21100J2	1	23	230	25.93"	11.75"	41
21150J2	1 1/2	30	230	31.45"	15.12"	49

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
21030J3A*	1/3	9	115	13.48"	9.53"	26
21030J3*	1/3	9	230	13.48"	9.53"	26
21050J3A	1/2	13	115	16.68"	9.53"	30
21050J3	1/2	13	230	16.68"	9.53"	30
21075J3	3/4	18	230	20.67"	10.66"	36
21100J3	1	23	230	25.93"	11.75"	41
21150J3	1 1/2	30	230	31.45"	13.28"	41

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
21150J3Z	1 1/2	30	230	31.45"	11.75"	45



4" No-Lead Brass Pump Ends

Model No.	HP	Wt.
21030J	1/3	10
21050J	1/2	11
21075J	3/4	13
21100J	1	15
21150J	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 108-118).

Output - in Gallons Per Minute (Depth to Water)

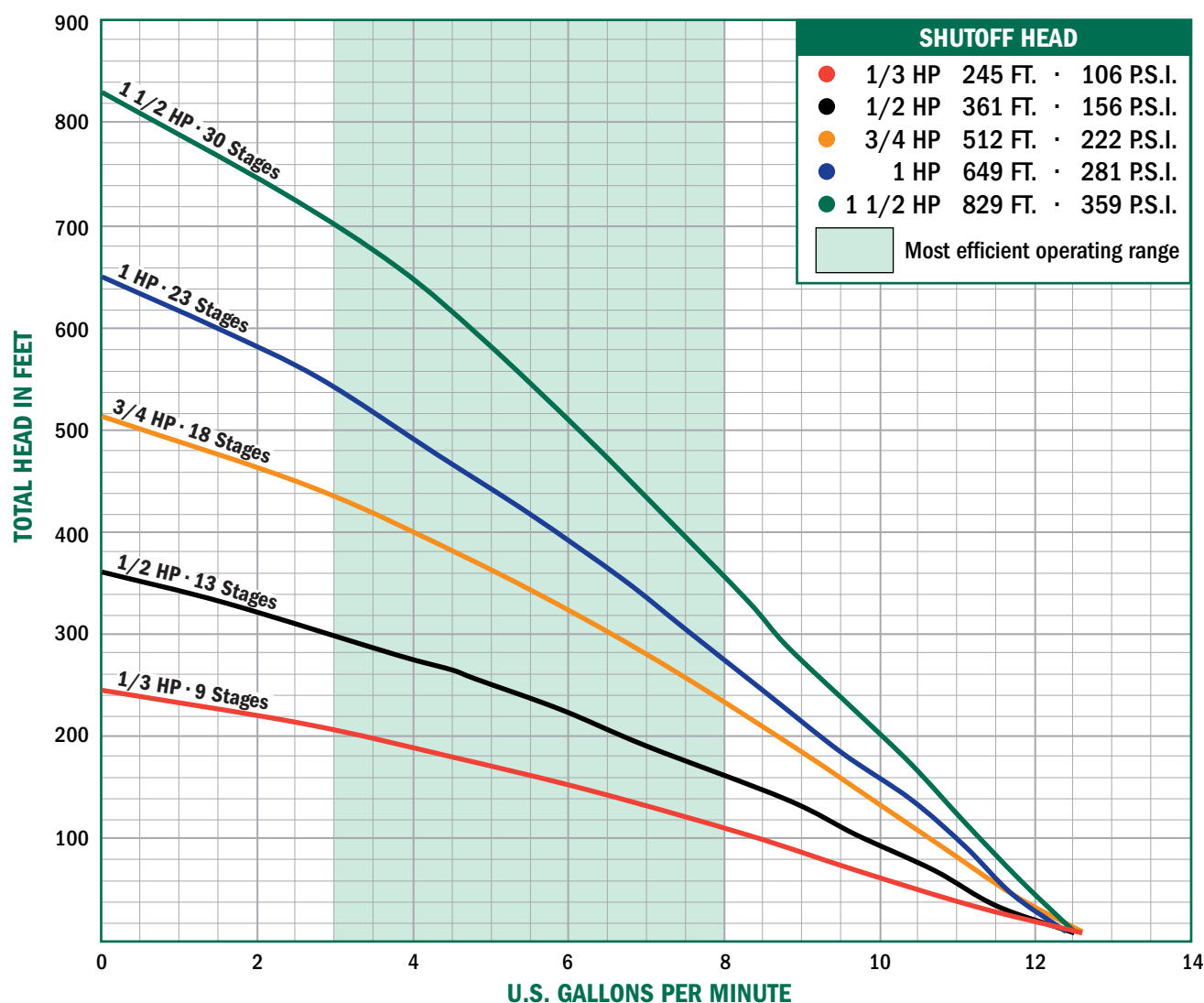
PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'
1/3 HP	11.7	10.6	9.5	8.4	7.3	6.1	4.8	3.4	1.8
	8.6	7.5	6.4	5.1	3.8	2.2			
	7.6	6.4	5.2	3.9	2.3				
	6.5	5.3	4.0	2.5					

PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
1/2 HP	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
	10.0	9.2	8.5	7.8	7.0	6.1	5.3	4.3	3.2	2.1			
	9.3	8.6	7.8	7.0	6.2	5.3	4.4	3.3	2.2				
	8.6	7.9	7.1	6.3	5.4	4.4	3.4	2.3					
	7.9	7.2	6.3	5.5	4.5	3.5	2.3						

PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'
3/4 HP	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
	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		
	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			
	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				
	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					

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

J Series - 5 GPM



Submersible Pumps

	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
1 HP	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			

	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'
1 1/2 HP	0	15.9	15.1	14.3	13.4	12.4	11.4	10.4	9.2	7.9	6.5	5.0	3.4	1.6
	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			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 7 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

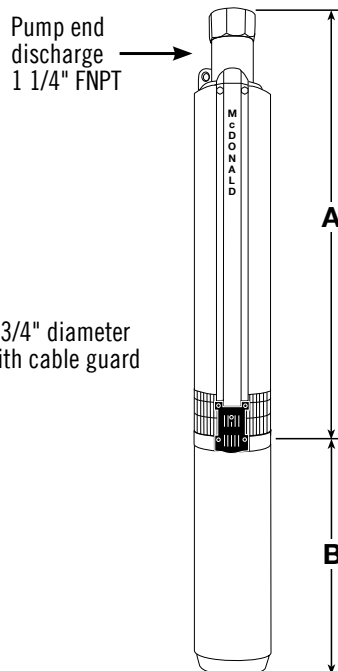
All V Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 2 horse power (HP). Two wire models up to 1 1/2 horse power (HP) or three wire models up to 2 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21030V2A*	1/3	6	115	11.1"	9.53"	24
21030V2*	1/3	6	230	11.1"	9.53"	25
21050V2A	1/2	9	115	13.48"	9.53"	26
21050V2	1/2	9	230	13.48"	9.53"	26
21075V2	3/4	12	230	15.92"	10.66"	31
21100V2	1	16	230	19.11"	11.75"	34
21150V2	1 1/2	21	230	23.58"	15.12"	46

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21030V3A*	1/3	6	115	11.1"	9.53"	25
21030V3*	1/3	6	230	11.1"	9.53"	25
21050V3A	1/2	9	115	13.48"	9.53"	26
21050V3	1/2	9	230	13.48"	9.53"	26
21075V3	3/4	12	230	15.92"	10.66"	30
21100V3	1	16	230	19.11"	11.75"	35
21150V3	1 1/2	21	230	23.58"	13.62"	41
21200V3	2	26	230	28.34"	15.12"	49



4" No-Lead Brass Pump Ends

Model No.	HP	WT.
21030V	1/3	9
21050V	1/2	10
21075V	3/4	13
21100V	1	11
21150V	1 1/2	16
21200V	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 108-118).

Output - in Gallons Per Minute (Depth to Water)

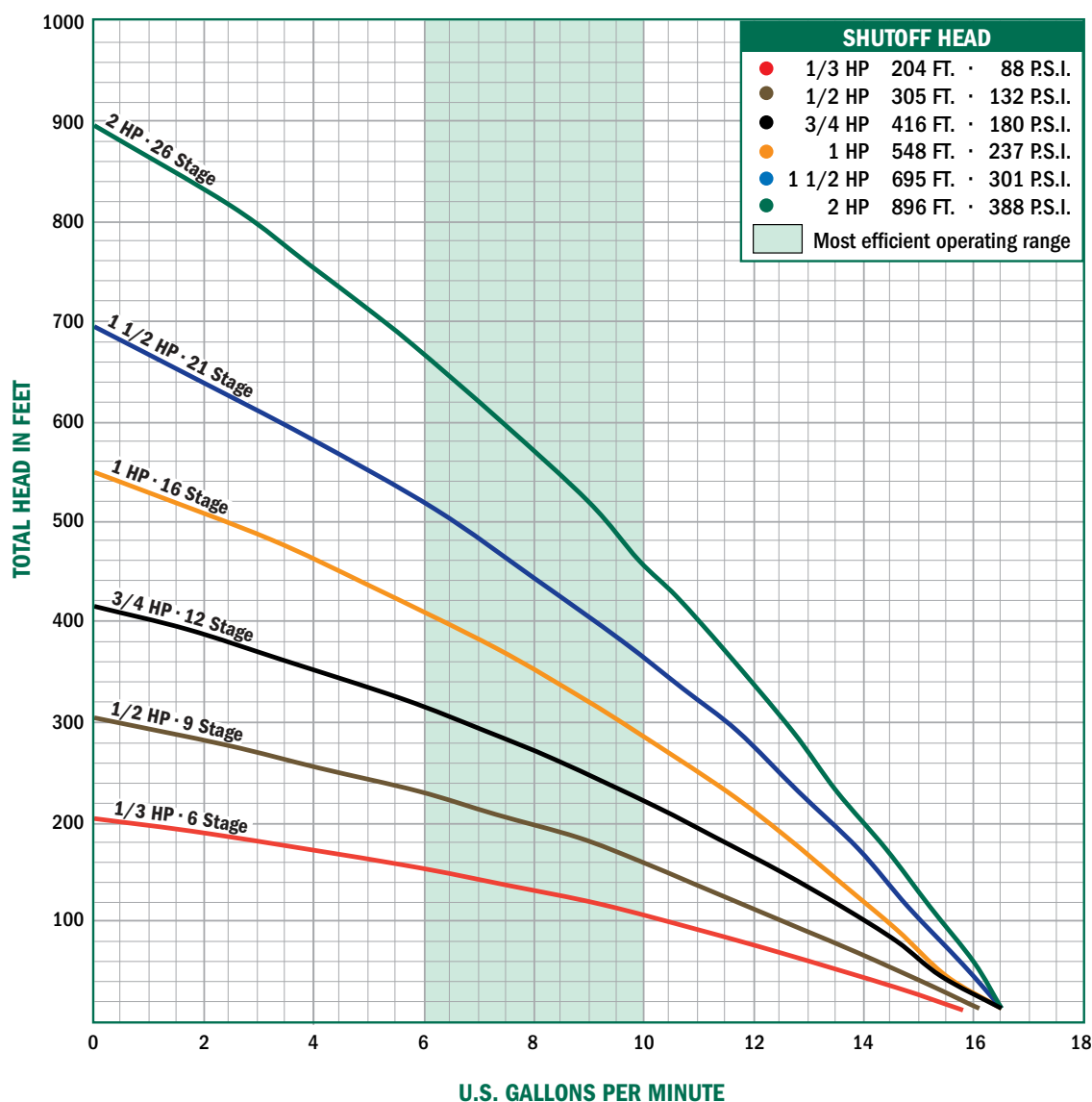
1/3 HP	PSI	25'	50'	75'	100'	125'	150'	175'
0	15.1	13.7	12.2	10.5	8.6	6.4	3.8	
30	10.9	9.0	6.9	4.4	1.3			
40	9.2	7.1	4.6	1.6				
50	7.2	4.8	1.9					

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						

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 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	3.5
	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	3.4	1.6
	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 Series - 10 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

All K Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horse power (HP). Two wire models up to 1 1/2 horse power (HP) or three wire models up to 5 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21030K2A*	1/3	5	115	12.01"	9.53"	19
21030K2*	1/3	5	230	12.01"	9.53"	19
21050K2A	1/2	7	115	13.65"	9.53"	19
21050K2	1/2	7	230	13.65"	9.53"	27
21075K2	3/4	9	230	15.34"	10.66"	29
21100K2	1	12	230	17.89"	11.75"	32
21150K2	1 1/2	16	230	22.55"	15.12"	42

Three Wire** Single Phase

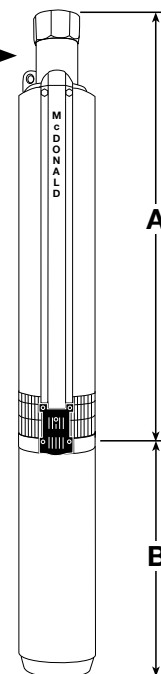
Model No.	HP	Stages	Volt	A	B	WT.
21030K3A*	1/3	5	115	12.01"	9.53"	19
21030K3*	1/3	5	230	12.01"	9.53"	19
21050K3A	1/2	7	115	13.65"	9.53"	19
21050K3	1/2	7	230	13.65"	9.53"	19
21075K3	3/4	9	230	15.34"	10.66"	29
21100K3	1	12	230	17.89"	11.75"	33
21150K3	1 1/2	16	230	22.55"	13.62"	38
21200K3	2	20	230	25.95"	15.12"	46
21300K3	3	26	230	31.06"	19.06"	70
21500K3	5	33	230	36.99"	29.62"	91

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
21150K3Z	1 1/2	16	230	22.55"	11.75"	35
21200K3Z	2	20	230	25.98"	13.62"	43
21300K3Z	3	26	230	31.06"	16.04"	60

Pump end
discharge
1 1/4" FNPT

3 3/4" diameter
with cable guard



4" No-Lead Brass Pump Ends

Model No.	HP	WT.
21030K	1/3	7
21050K	1/2	8
21075K	3/4	9
21100K	1	10
21150K	1 1/2	13
21200K	2	15
21300K	3	17
21500K	5	19

* 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 108-118).

Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'
1/3 HP	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						

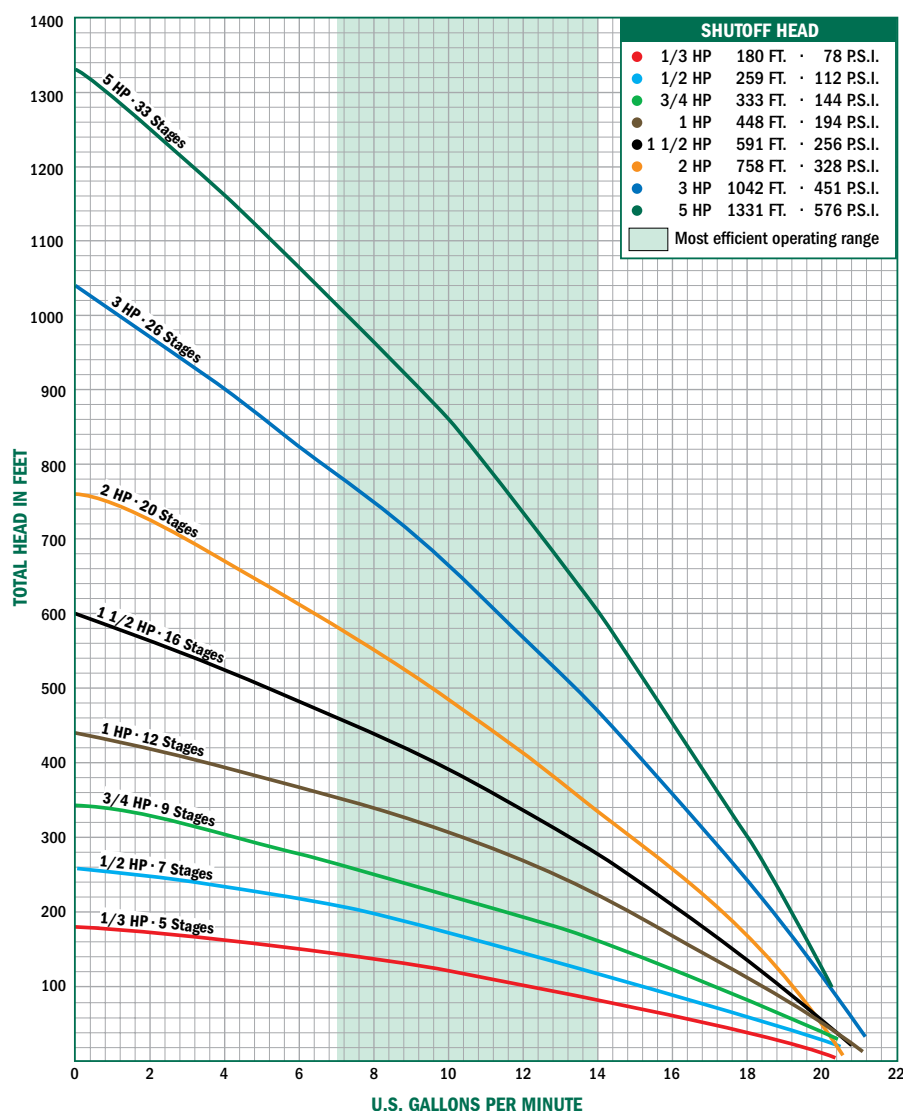
	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
1/2 HP	0	19.90	18.49	16.99	15.40	13.69	11.84	9.79	7.49	4.78	1.32
	30	15.77	14.09	12.27	10.28	8.04	5.44	2.21			
	40	14.22	12.42	10.44	8.22	5.66	2.49				
	50	12.56	10.60	8.40	5.87	2.76					
	60	10.75	8.58	6.08	3.03						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
3/4 HP	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						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
1 HP	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					

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

K Series - 10 GPM



Submersible Pumps

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

1 1/2 HP	PSI	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		

2 HP	PSI	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			

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

3 HP	PSI	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	1.26
	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			

5 HP	PSI	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 Series - 15 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

All L Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horse power (HP). Two wire models up to 1 1/2 horse power (HP) or three wire models up to 5 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21030L2A*	1/3	5	115	13.52"	9.53"	26
21030L2*	1/3	5	230	13.52"	9.53"	26
21050L2A	1/2	6	115	14.59"	9.53"	26
21050L2	1/2	6	230	14.59"	9.53"	26
21075L2	3/4	8	230	16.75"	10.66"	30
21100L2	1	10	230	18.89"	11.75"	34
21150L2	1 1/2	13	230	22.11"	15.12"	42

Three Wire** Single Phase

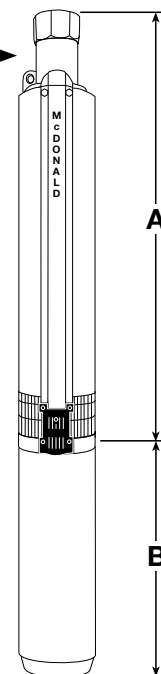
Model No.	HP	Stages	Volt	A	B	WT.
21030L3A*	1/3	5	115	13.52"	9.53"	26
21030L3*	1/3	5	230	13.52"	9.53"	26
21050L3A	1/2	6	115	14.59"	9.53"	26
21050L3	1/2	6	230	14.59"	9.53"	26
21075L3	3/4	8	230	16.75"	10.66"	30
21100L3	1	10	230	18.89"	11.75"	34
21150L3	1 1/2	13	230	22.11"	13.62"	39
21200L3	2	17	230	26.41"	15.12"	46
21300L3	3	23	230	34.23"	19.06"	60
21500L3	5	35	230	47.10"	29.62"	87

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
21200L3Z	2	17	230	26.41"	13.62"	43
21300L3Z	3	23	230	34.23"	16.04"	53
21500L3Z	5	35	230	47.10"	23.62"	74

Pump end
discharge
1 1/4" FNPT

3 3/4" diameter
with cable guard



4" No-Lead Brass Pump Ends

Model No.	HP	WT.
21030L	1/3	8
21050L	1/2	9
21075L	3/4	10
21100L	1	11
21150L	1 1/2	11
21200L	2	13
21300L	3	17
21500L	5	24

* 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 108-118).

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					

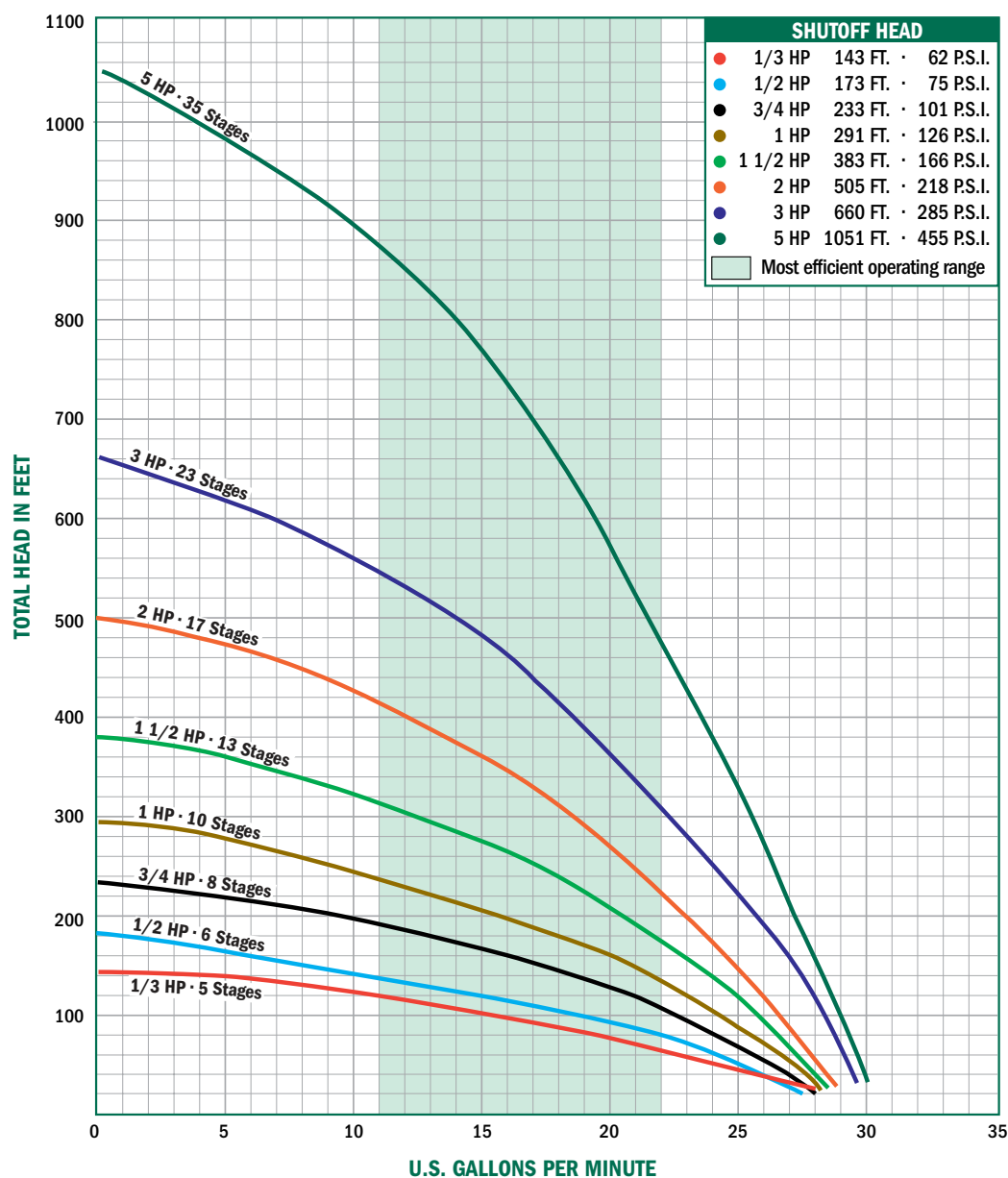
1/2 HP	PSI	25'	50'	75'	100'	125'	150'
0	28.28	25.58	22.58	19.18	15.14	9.84	
30	20.00	16.14	11.23	2.99			
40	16.46	11.66	3.99				
50	12.08	4.85					
60	5.63						

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						

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

L Series - 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 Series - 20 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

All P Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP). Two wire models up to 1 1/2 horse power (HP) or three wire models up to 5 horse power (HP).

Two Wire Single Phase

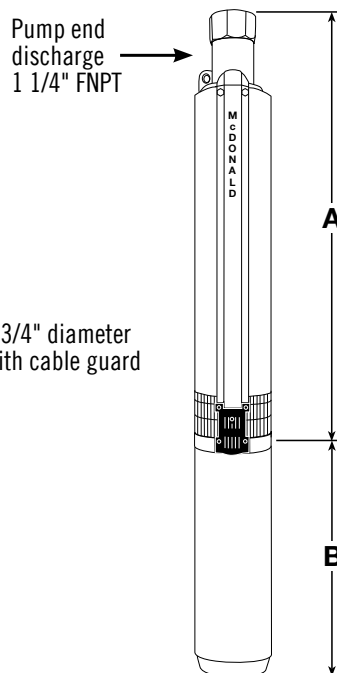
Model No.	HP	Stages	Volt	A	B	WT.
21050P2A	1/2	5	115	13.52"	9.53"	26
21050P2	1/2	5	230	13.52"	9.53"	26
21075P2	3/4	7	230	15.67"	10.66"	30
21100P2	1	9	230	17.82"	11.75"	34
21150P2	1 1/2	12	230	21.04"	15.12"	44

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21050P3A	1/2	5	115	13.52"	9.53"	26
21050P3	1/2	5	230	13.52"	9.53"	26
21075P3	3/4	7	230	15.67"	10.66"	29
21100P3	1	9	230	17.82"	11.75"	34
21150P3	1 1/2	12	230	21.04"	13.62"	40
21200P3	2	14	230	23.19"	15.12"	45
21300P3	3	20	230	31.00"	19.06"	58
21500P3	5	32	230	43.88"	29.62"	86

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
21150P3Z	1 1/2	12	230	21.04"	11.75"	37
21200P3Z	2	14	230	23.19"	13.62"	42
21300P3Z	3	20	230	31.00"	16.04"	51
21500P3Z	5	32	230	43.88"	23.62"	74



4" No-Lead Brass Pump Ends

Model No.	HP	WT.
21050P	1/2	7
21075P	3/4	8
21100P	1	9
21150P	1 1/2	11
21200P	2	12
21300P	3	16
21500P	5	24

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

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					

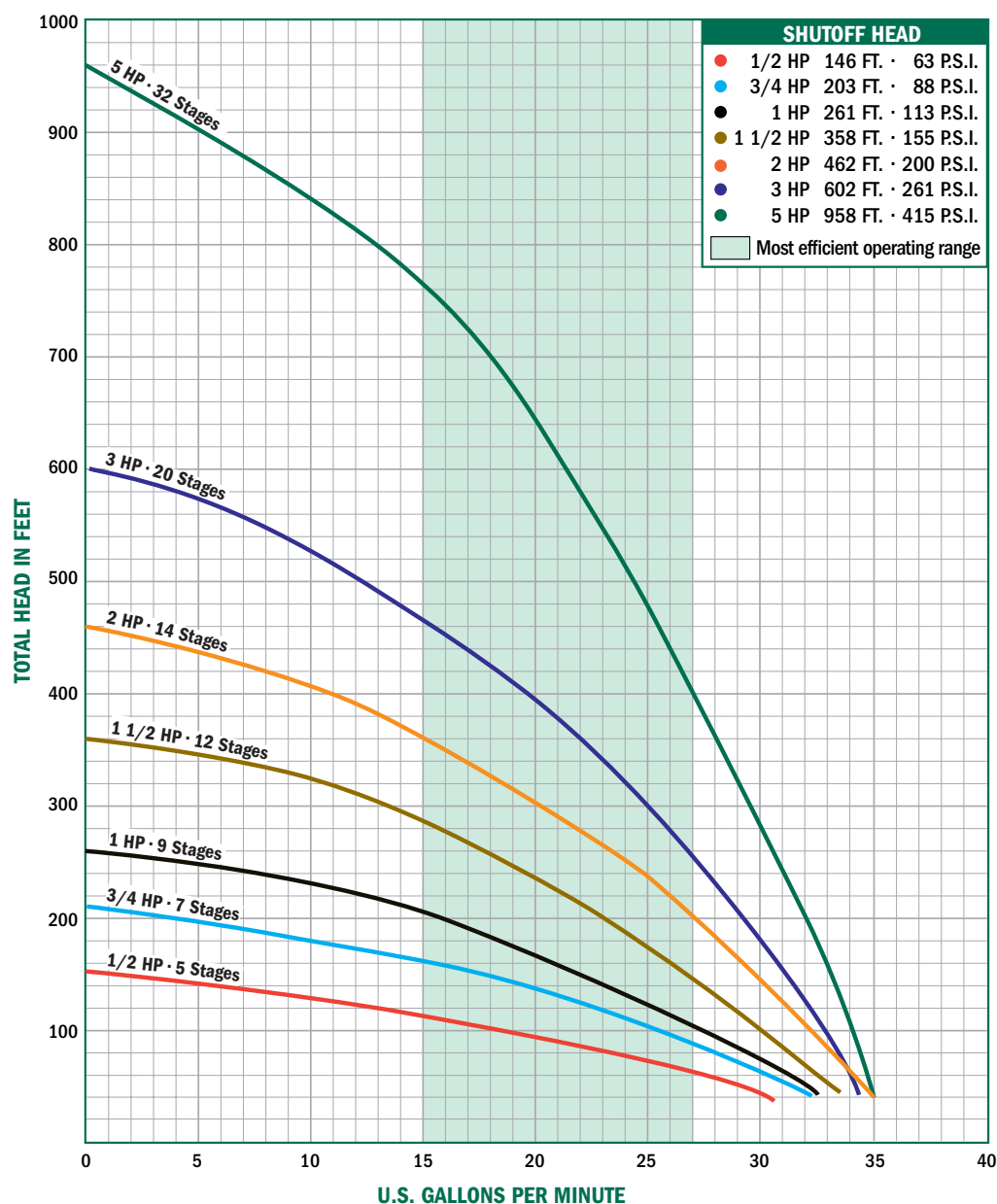
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
0	32.36	29.82	27.06	24.01	20.58	16.54	11.39	2.53	
30	24.74	21.40	17.53	12.71	5.44				
40	21.67	17.85	13.13	6.20					
50	18.16	13.54	6.91						
60	13.93	7.56							

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				

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 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 Series - 25 GPM

A.Y. McDonald offers a full line of no-lead brass 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 no-lead discharge head with a built-in check valve, and stainless steel shaft and coupling.

All M Series No-Lead Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP). Two wire models up to 1 1/2 horse power (HP) or three wire models up to 5 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
21050M2A	1/2	4	115	12.44"	9.53"	26
21050M2	1/2	4	230	12.44"	9.53"	26
21075M2	3/4	5	230	13.52"	10.66"	28
21100M2	1	7	230	15.67"	11.75"	33
21150M2	1 1/2	9	230	17.82"	15.12"	42

Three Wire** Single Phase

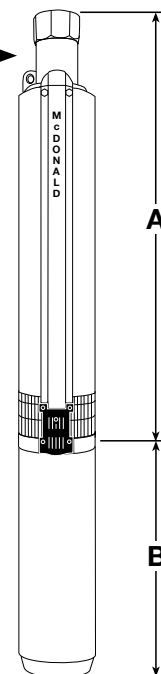
Model No.	HP	Stages	Volt	A	B	WT.
21050M3A	1/2	4	115	12.44"	9.53"	26
21050M3	1/2	4	230	12.44"	9.53"	26
21075M3	3/4	5	230	13.52"	10.66"	28
21100M3	1	7	230	15.67"	11.75"	32
21150M3	1 1/2	9	230	17.82"	13.62"	38
21200M3	2	12	230	21.04"	15.12"	43
21300M3	3	16	230	25.33"	19.06"	55
21500M3	5	25	230	36.38"	29.62"	85

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
21150M3Z	1 1/2	9	230	17.82"	11.75"	34
21200M3Z	2	12	230	21.04"	13.62"	40
21300M3Z	3	16	230	25.33"	16.04"	48
21500M3Z	5	25	230	36.38"	23.62"	71
21500M3Y	5	25	460	36.38"	23.62"	71

Pump end
discharge
1 1/4" FNPT

3 3/4" diameter
with cable guard



4" No-Lead Brass Pump Ends

Model No.	HP	WT.
21050M	1/2	9
21075M	3/4	9
21100M	1	10
21150M	1 1/2	11
21200M	2	11
21300M	3	14
21500M	5	19

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

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			

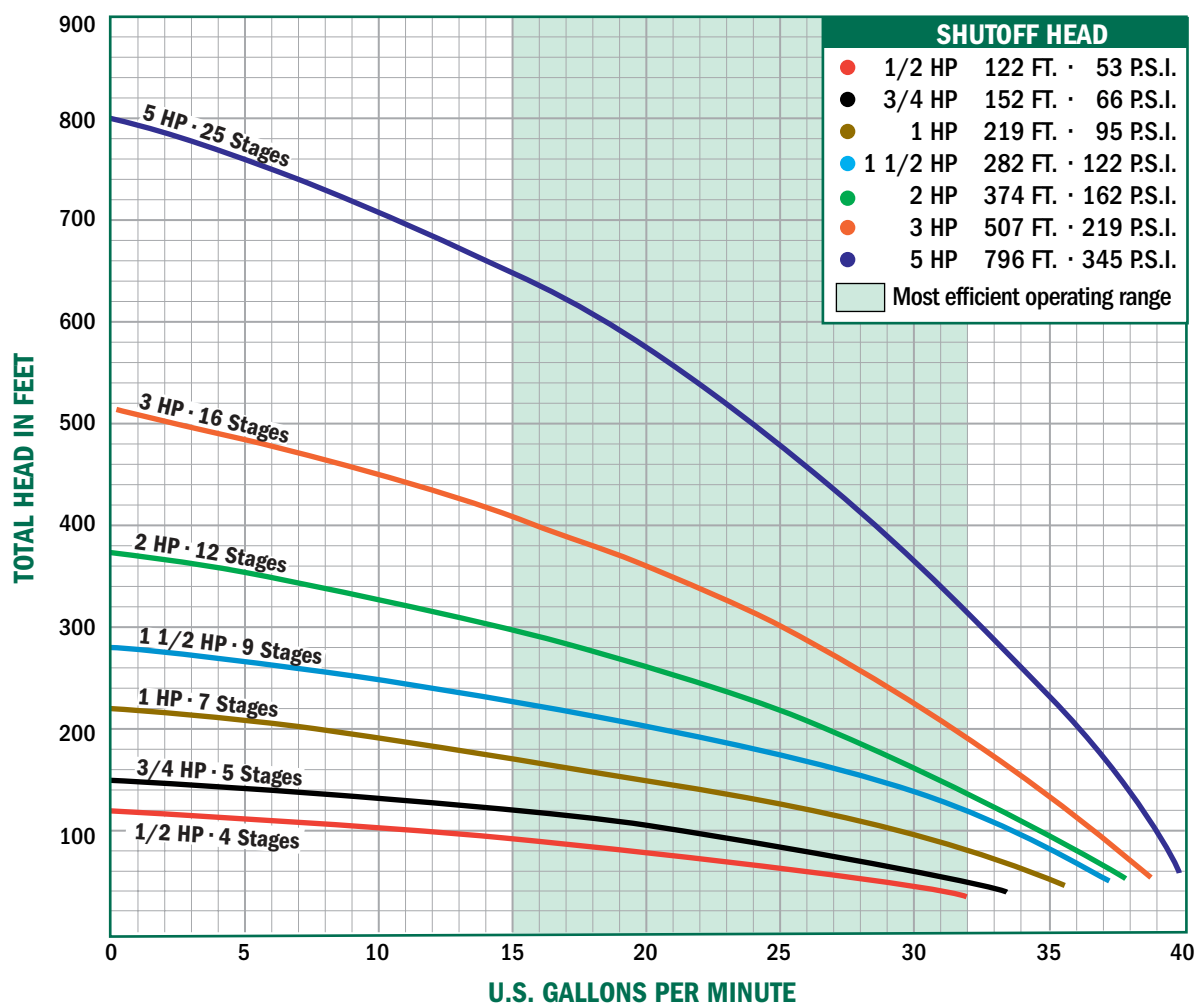
3/4 HP	PSI	25'	50'	75'	100'	125'	150'
	0	36.08	31.97	27.33	21.88	14.91	2.74
	30	23.22	16.71	6.80			
	40	17.27	7.85				
	50	8.81					

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						

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

M Series - 25 GPM



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			

FRICION 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			

22000 Series

A.Y. McDonald offers a full line of four inch submersibles ranging from 1/2 through 1 1/2 horsepower (HP), with flow rates ranging from 5 through 25 gallons per minute (GPM).

Our 22000 submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 GPM models.

Powered by NEMA approved A.Y. McDonald stainless steel motors on all single phase pumps.

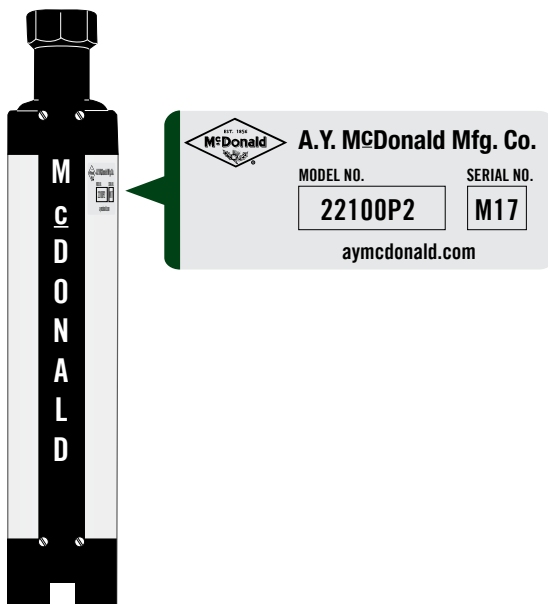
The charts on the following page will assist you in choosing the pump that meets your needs.



Features:

- Sizes - 1/2, 3/4, 1, 1 1/2 HP
- Reinforced thermoplastic motor bracket and discharge with built-in guide bearing
- 300 series stainless steel motor coupling
- Stainless steel pump shell
- Thermoplastic diffusers
- Thermoplastic impellers
- Stainless steel pump shaft
- Internal, anti-spin check valve standard
- Thermoplastic intake screen and cable guard
- 1 1/4" FNPT discharge
- Standard is 230V, single phase, 60 Hz

Locating the code number on the pump



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

- Pump Model
- Serial Number

Features

Discharge Head

Incorporates built-in hex fluted guide bearing with rubber insert surrounding the stainless steel shaft which provides superior wear resistance against the harshest conditions. Self lubricating for long life. Large wrenching surfaces and 1 1/4" NPT female outlet threads standard. McDonald is molded into discharge head.

Rope Hook Attachments

Cable Guard

Cable guard fits into motor bracket to assure smooth entry into well casing.

Diffuser

Polycarbonate Durable and corrosion/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.

Pump Shaft

Large stainless steel 7/16" hex for strength and positive impeller drive.

Check Valve

Internal anti-spin check valve with o-ring seal. Molded from engineered polymer.

Pump Shell

High grade, heavy wall stainless steel for excellent corrosion resistance. Left hand threaded at both ends to prevent loosening. Easily repairable in the field.

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

Motor Bracket

Rigid and accurate alignment to Nema standard fitted motors.

Hardware

All screws, washers, and assembly nuts are corrosion resistant stainless steel.

Intake Screen

Once assembled, each pump is individually tested to ensure performance within design specifications.

J Series - 5 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All J Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 horse power (HP). Two or three wire models up to 1 horse power (HP).

Two Wire Single Phase

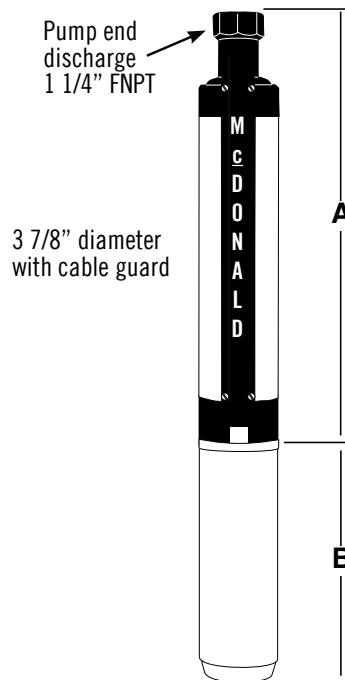
Model No.	HP	Stages	Volt	A	B	Wt.
22050J2	1/2	13	230	17.43"	9.53"	23
22075J2	3/4	18	230	21.42"	10.66"	28
22100J2	1	23	230	26.68"	11.75"	33

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050J3	1/2	13	230	17.43"	9.53"	28
22075J3	3/4	18	230	21.42"	10.66"	36
22100J3	1	23	230	26.68"	11.75"	39

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050J	1/2	7
22075J	3/4	11
22100J	1	13



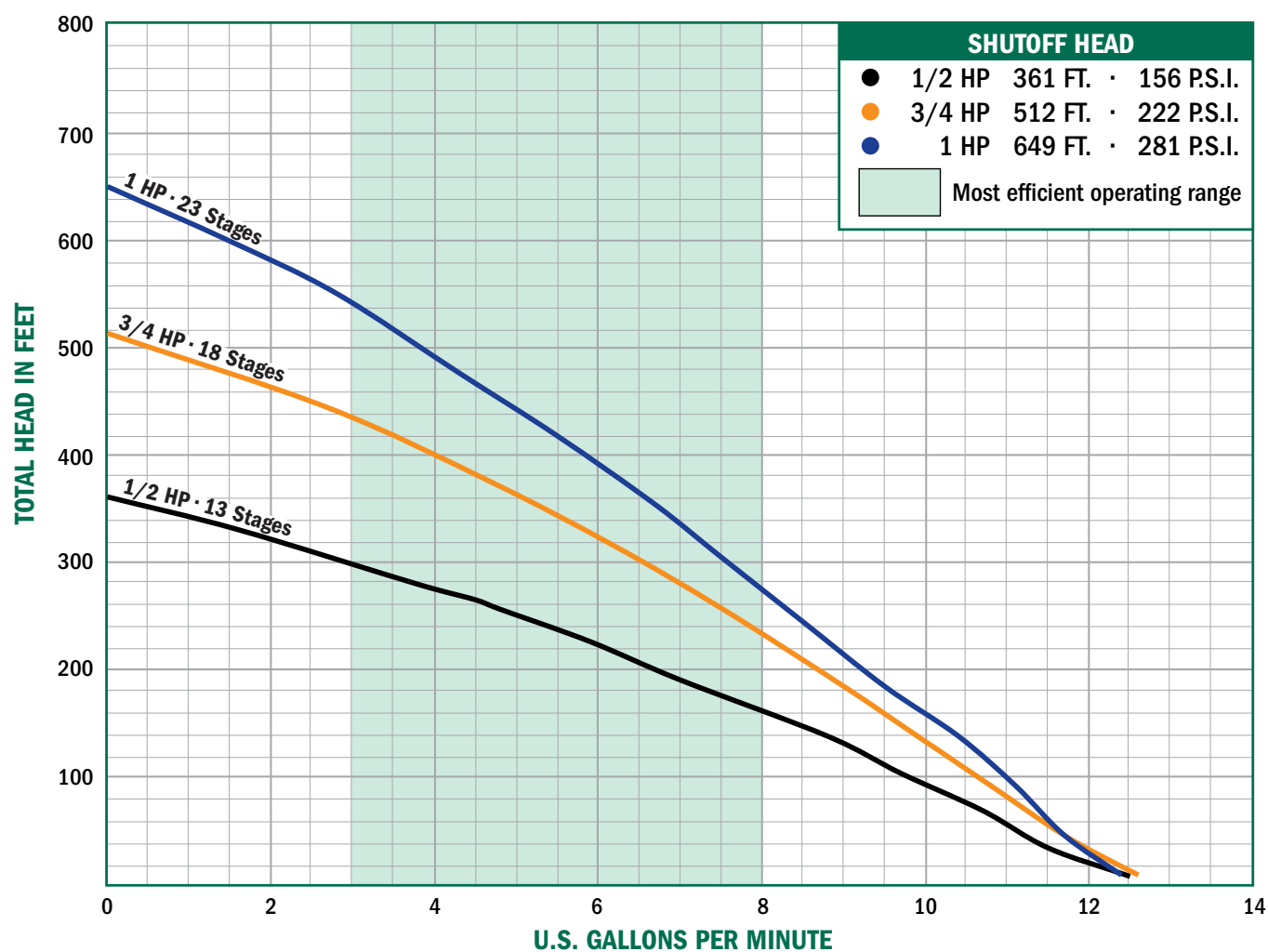
Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
1/2 HP	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						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'
3/4 HP	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	0.8	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 Series - 5 GPM



Submersible Pumps

	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
1 HP	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	0.6	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			

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

V Series - 7 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All V Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

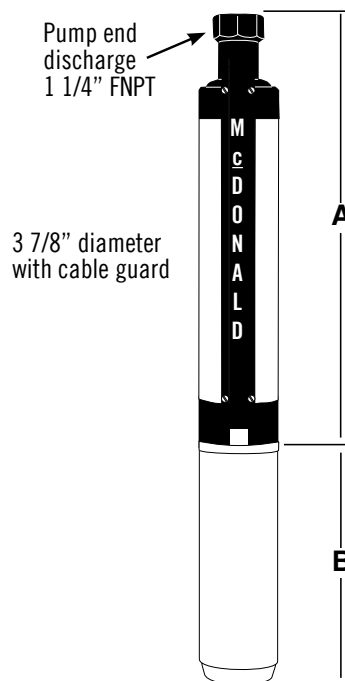
Model No.	HP	Stages	Volt	A	B	Wt.
22050V2A	1/2	9	115	14.23"	9.53"	23
22050V2	1/2	9	230	14.23"	9.53"	22
22075V2	3/4	12	230	16.67"	10.66"	26
22100V2	1	16	230	19.86"	11.75"	29
22150V2	1 1/2	21	230	24.33"	15.12"	40

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050V3A	1/2	9	115	14.23"	9.53"	23
22050V3	1/2	9	230	14.23"	9.53"	23
22075V3	3/4	12	230	16.67"	10.66"	26
22100V3	1	16	230	19.86"	11.75"	30
22150V3	1 1/2	21	230	24.33"	13.62"	38

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050V	1/2	6
22075V	3/4	9
22100V	1	9
22150V	1 1/2	13



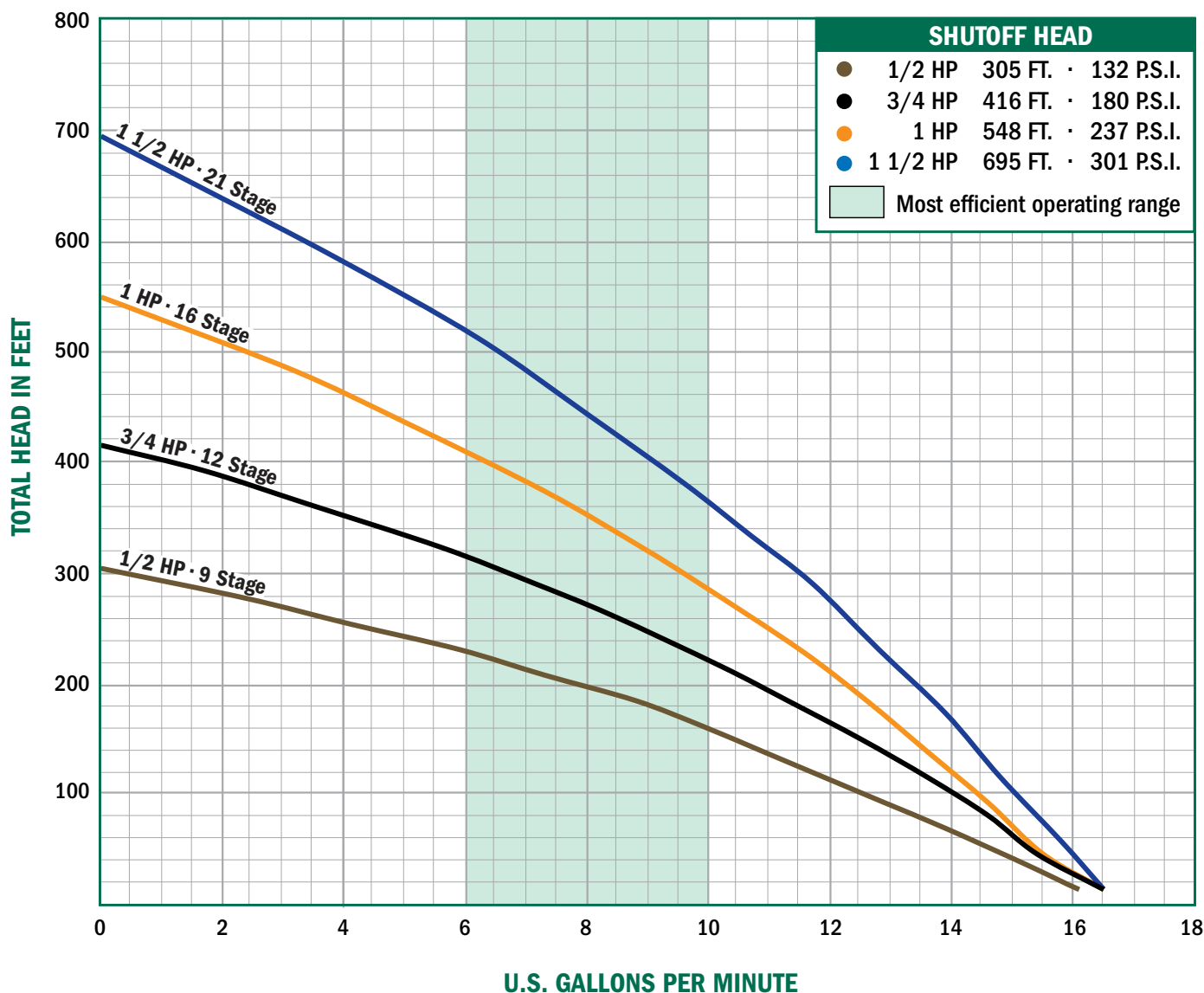
Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
1/2 HP	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					

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'
3/4 HP	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					

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 7 GPM



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	3.5
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				

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	3.4	1.6
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			

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

K Series - 10 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All K Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

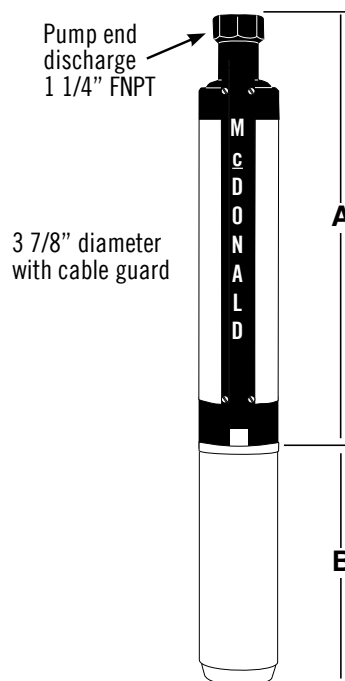
Model No.	HP	Stages	Volt	A	B	Wt.
22050K2A	1/2	7	115	12.3"	9.53"	23
22050K2	1/2	7	230	12.3"	9.53"	23
22075K2	3/4	9	230	13.7"	10.66"	27
22100K2	1	12	230	16.0"	11.75"	30
22150K2	1 1/2	16	230	19.7"	15.12"	41

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050K3A	1/2	7	115	12.3"	9.53"	27
22050K3	1/2	7	230	12.3"	9.53"	27
22075K3	3/4	9	230	13.7"	10.66"	29
22100K3	1	12	230	16.0"	11.75"	34
22150K3	1 1/2	16	230	19.7"	13.62"	42

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050K	1/2	6
22075K	3/4	6
22100K	1	7
22150K	1 1/2	10



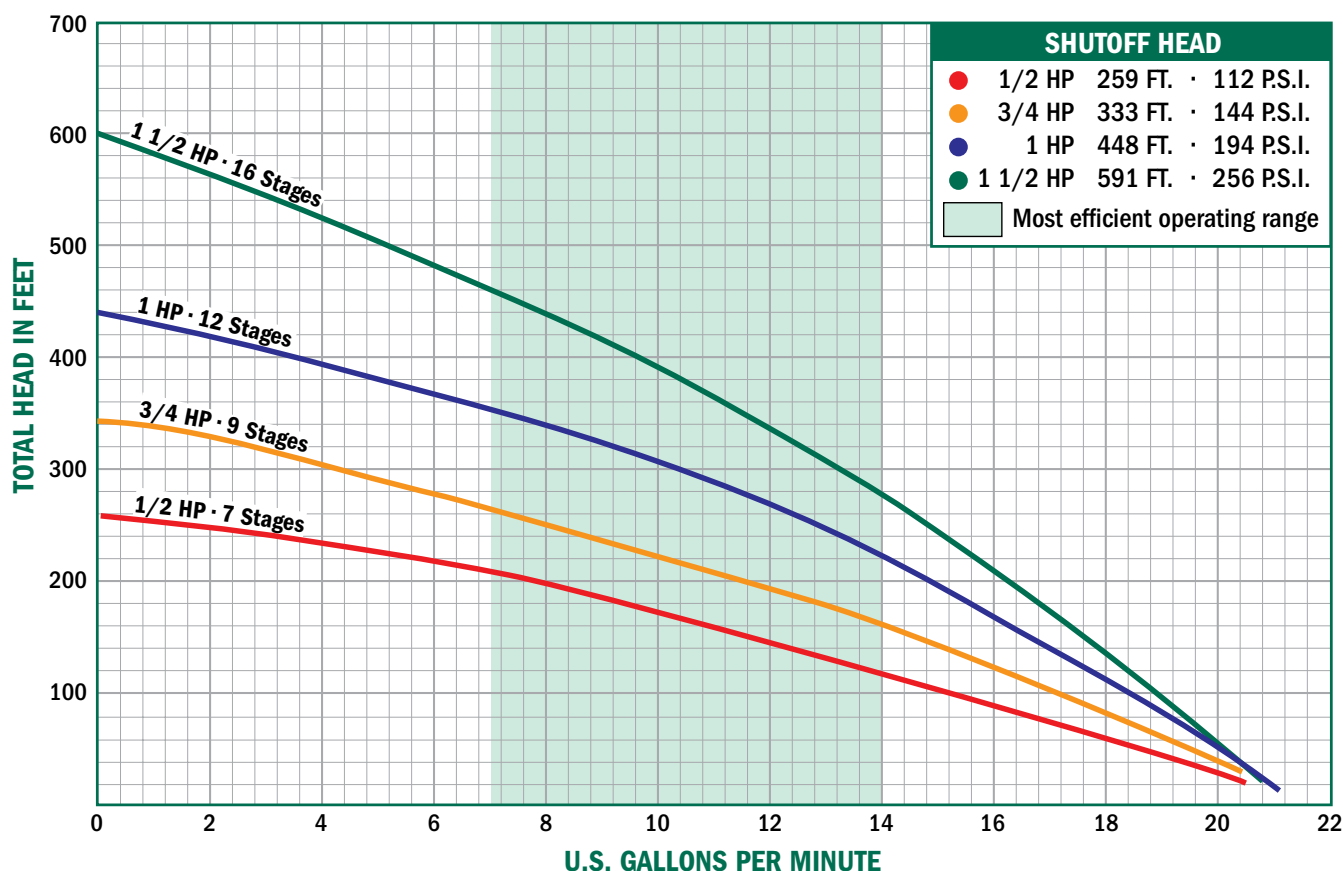
Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
1/2 HP	0	19.90	18.49	16.99	15.40	13.69	11.84	9.79	7.49	4.78	1.32
	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						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
3/4 HP	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						

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

K Series - 10 GPM



1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
	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					
1 1/2 HP	PSI	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								

FRICITION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

L Series - 15 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All L Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

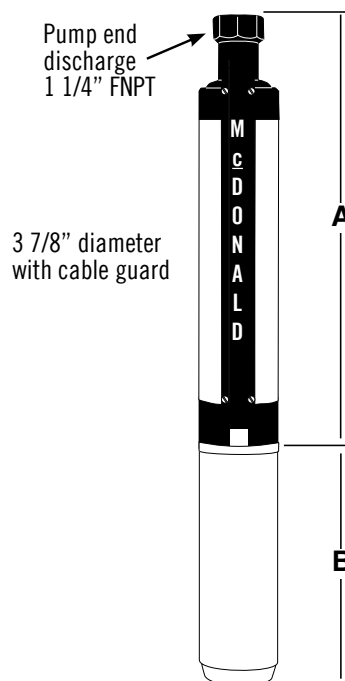
Model No.	HP	Stages	Volt	A	B	Wt.
22050L2A	1/2	6	115	13.55"	9.53"	23
22050L2	1/2	6	230	13.55"	9.53"	23
22075L2	3/4	8	230	15.71"	10.66"	27
22100L2	1	10	230	17.85"	11.75"	31
22150L2	1 1/2	13	230	21.07"	15.12"	39

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050L3A	1/2	6	115	13.55"	9.53"	23
22050L3	1/2	6	230	13.55"	9.53"	23
22075L3	3/4	8	230	15.71"	10.66"	27
22100L3	1	10	230	17.85"	11.75"	31
22150L3	1 1/2	13	230	21.07"	13.62"	36

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050L	1/2	6
22075L	3/4	6
22100L	1	9
22150L	1 1/2	9



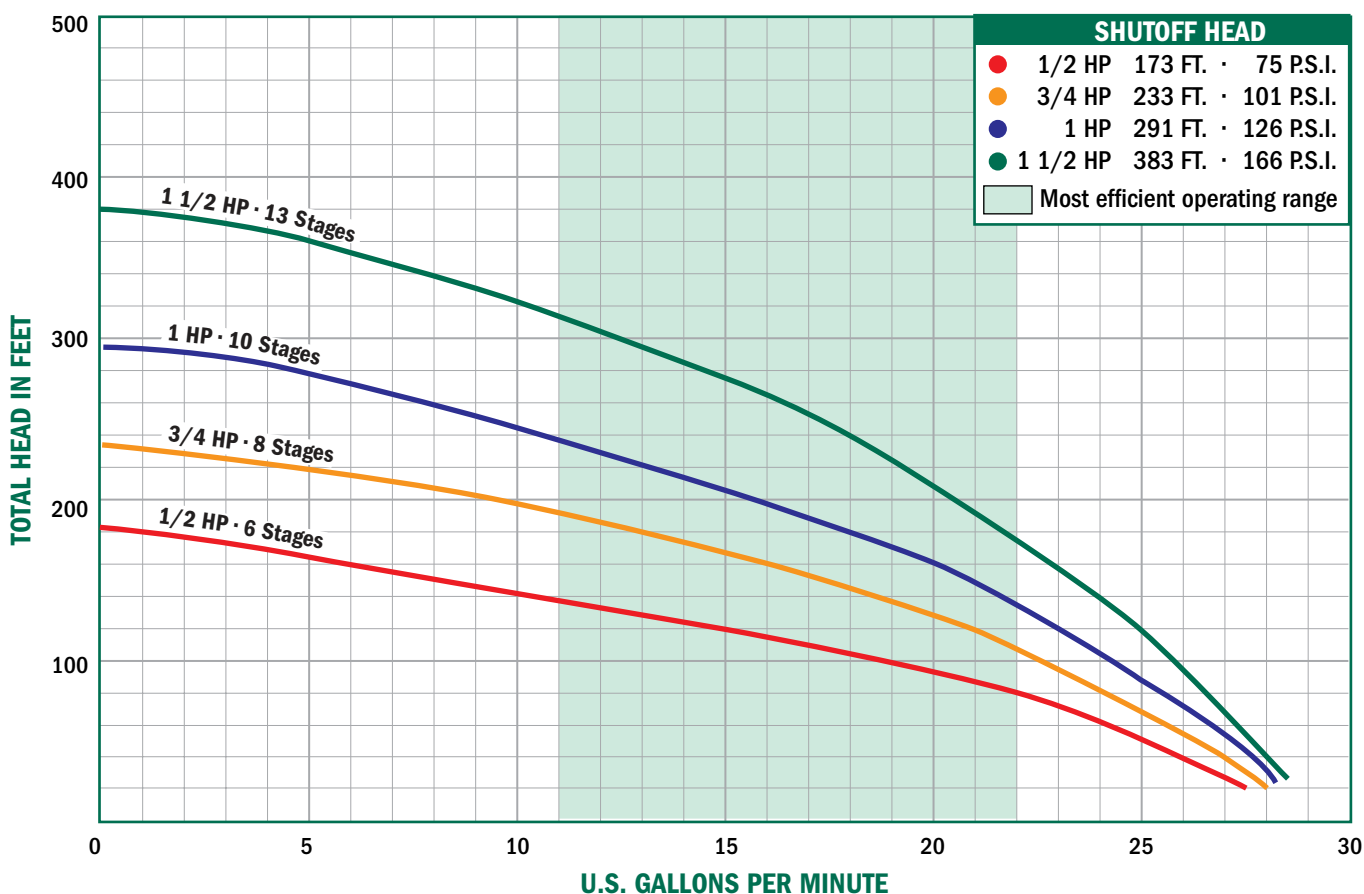
Output - in Gallons Per Minute (Depth to Water)

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						

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

L Series - 15 GPM



Submersible Pumps

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					

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			

FRICITION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

P Series - 20 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All P Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

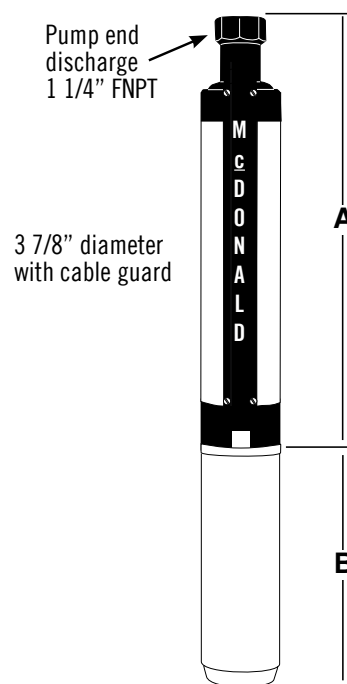
Model No.	HP	Stages	Volt	A	B	Wt.
22050P2A	1/2	5	115	12.48"	9.53"	23
22050P2	1/2	5	230	12.48"	9.53"	23
22075P2	3/4	7	230	14.63"	10.66"	27
22100P2	1	9	230	16.78"	11.75"	31
22150P2	1 1/2	12	230	20.00"	15.12"	41

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050P3A	1/2	5	115	12.02"	9.53"	23
22050P3	1/2	5	230	12.02"	9.53"	23
22075P3	3/4	7	230	14.17"	10.66"	26
22100P3	1	9	230	16.78"	11.75"	31
22150P3	1 1/2	12	230	20.00"	13.62"	37

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050P	1/2	5
22075P	3/4	6
22100P	1	7
22150P	1 1/2	8



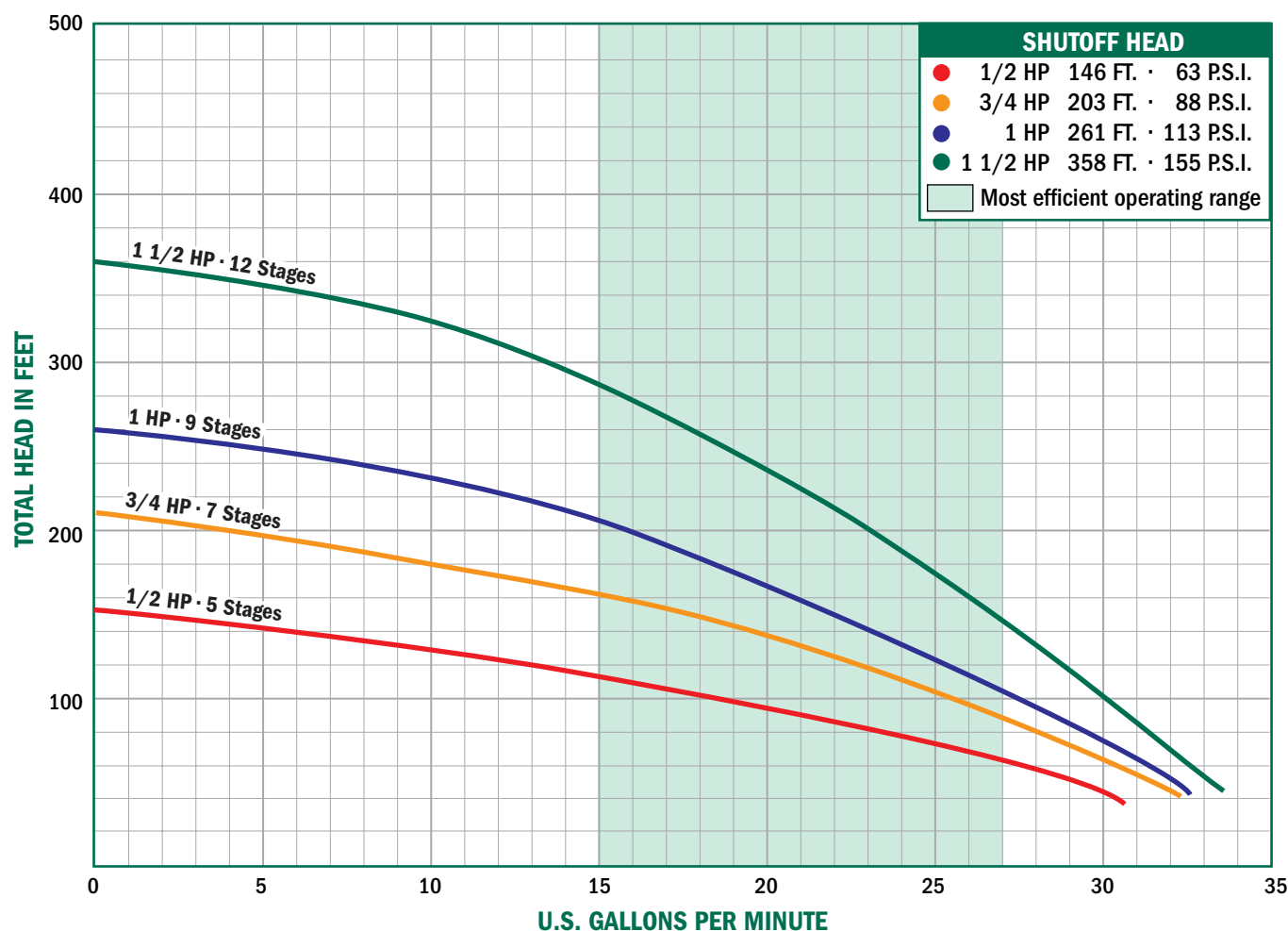
Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'
1/2 HP	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				

	PSI	25'	50'	75'	100'	125'	150'	175'	200'
3/4 HP	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						

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 20 GPM



Submersible Pumps

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
1 HP	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						

	PSI	50'	100'	150'	200'	250'	300'	350'
1 1/2 HP	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

M Series - 25 GPM

A.Y. McDonald offers a full line of thermoplastic 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 thermoplastic discharge head with a built-in check valve, and stainless steel shaft and coupling.

All M Series Thermoplastic pumps have 1 1/4" discharge with internal check valve and sizes range from 1/2 to 1 1/2 horse power (HP). Two or three wire models up to 1 1/2 horse power (HP).

Two Wire Single Phase

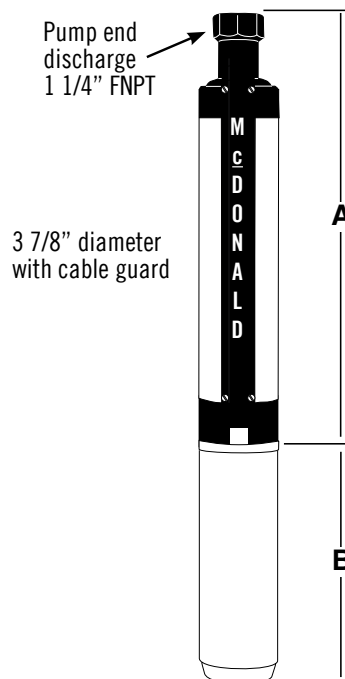
Model No.	HP	Stages	Volt	A	B	Wt.
22050M2A	1/2	4	115	10.94"	9.53"	23
22050M2	1/2	4	230	10.94"	9.53"	23
22075M2	3/4	5	230	12.48"	10.66"	25
22100M2	1	7	230	14.63"	11.75"	30
22150M2	1 1/2	9	230	16.78"	15.12"	39

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
22050M3A	1/2	4	115	10.94"	9.53"	23
22050M3	1/2	4	230	10.94"	9.53"	23
22075M3	3/4	5	230	12.48"	10.66"	25
22100M3	1	7	230	14.17"	11.75"	29
22150M3	1 1/2	9	230	16.78"	13.62"	35

4" Thermoplastic Pump Ends

Model No.	HP	Wt.
22050M	1/2	5
22075M	3/4	5
22100M	1	6
22150M	1 1/2	7



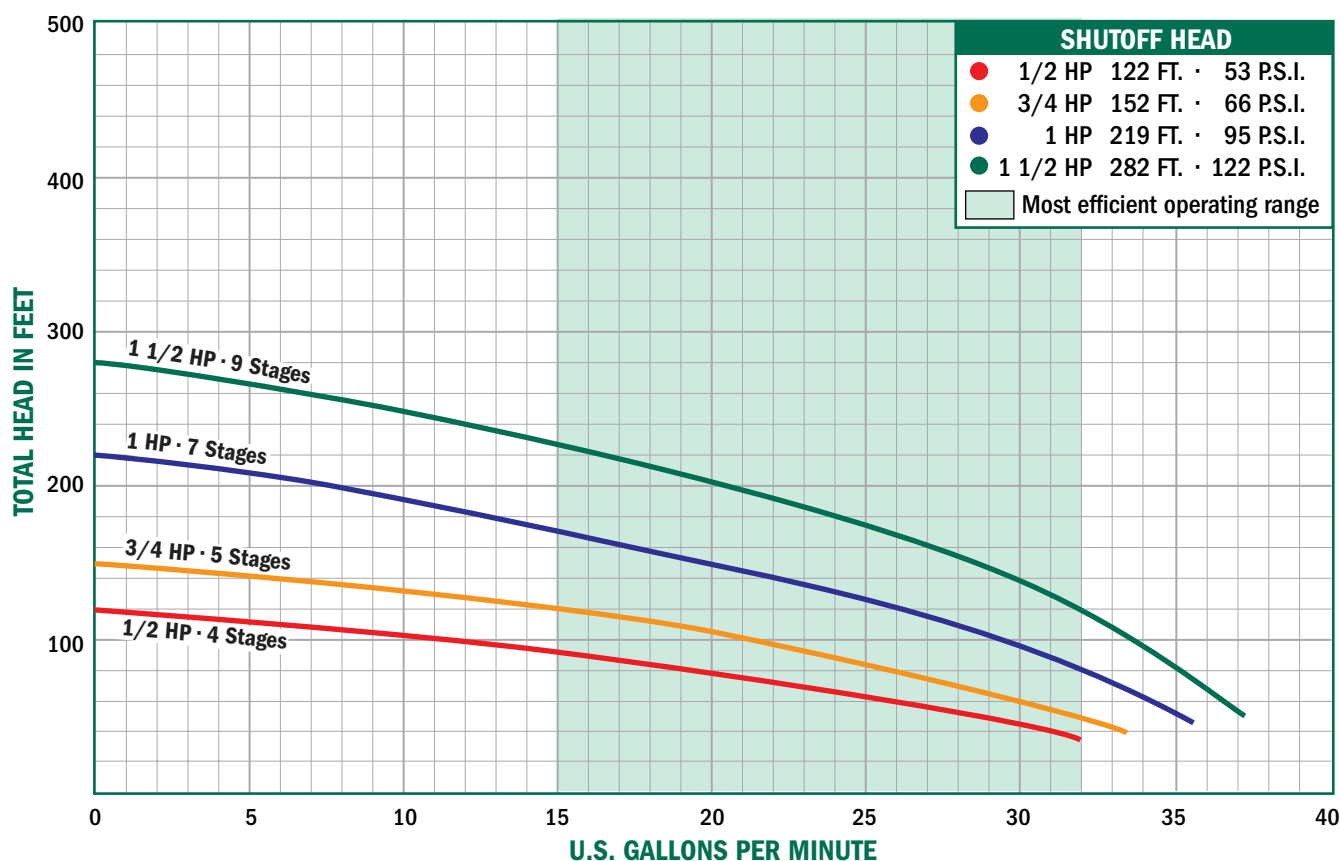
Output - in Gallons Per Minute (Depth to Water)

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					

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

M Series - 25 GPM



	PSI	25'	50'	75'	100'	125'	150'	175'	200'
1 HP	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					

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
1 1/2 HP	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						

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

23000 Series

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 GPM models.

Powered by NEMA approved A.Y. McDonald stainless steel motors.

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



Submersible Pumps

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/abrasion. 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.

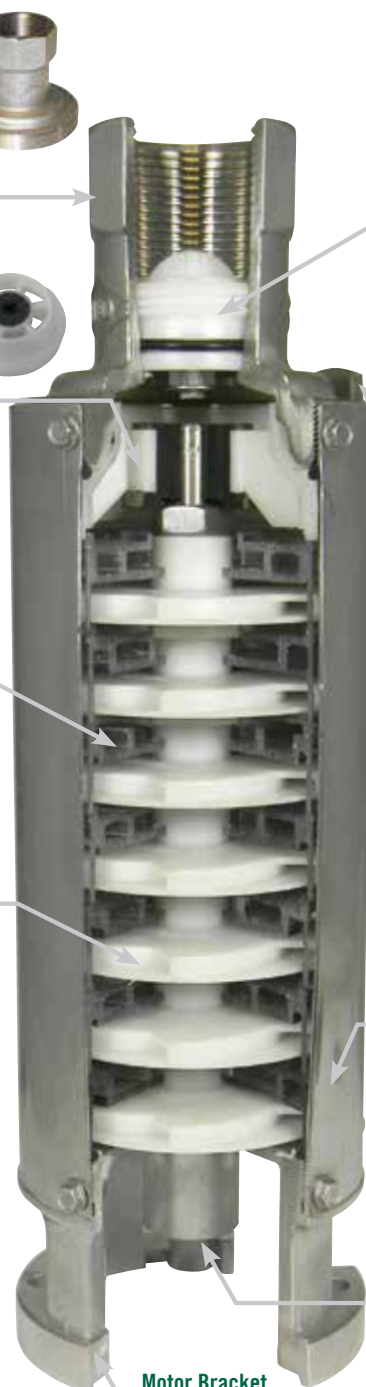
Stainless Steel Hex Shaft 7/16"

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.



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

Two Wire Single Phase

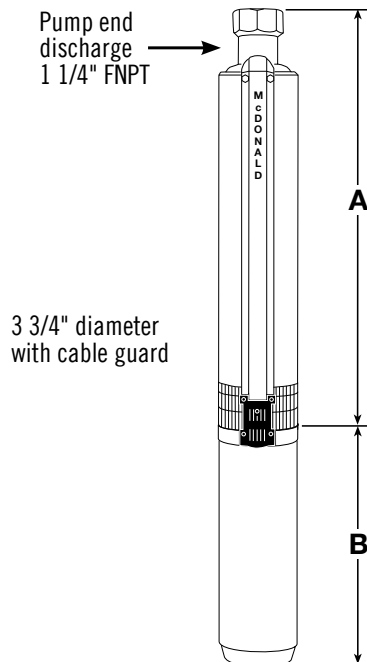
Model No.	HP	Stages	Volt	A	B	Wt.
23030J2A*	1/3	9	115	13.48"	9.53"	26
23030J2*	1/3	9	230	13.48"	9.53"	26
23050J2A	1/2	13	115	16.68"	9.53"	30
23050J2	1/2	13	230	16.68"	9.53"	30
23075J2	3/4	18	230	20.67"	10.66"	36
23100J2	1	23	230	25.93"	11.75"	41
23150J2	1 1/2	30	230	31.45"	15.12"	49

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
23030J3A*	1/3	9	115	13.48"	9.53"	26
23030J3*	1/3	9	230	13.48"	9.53"	26
23050J3A	1/2	13	115	16.68"	9.53"	30
23050J3	1/2	13	230	16.68"	9.53"	30
23075J3	3/4	18	230	20.67"	10.66"	36
23100J3	1	23	230	25.93"	11.75"	41
23150J3	1 1/2	30	230	31.45"	13.62"	41

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
23150J3Z	1 1/2	30	230	31.45"	15.82"	45



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
23030J	1/3	9
23050J	1/2	10
23075J	3/4	12
23100J	1	13
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 108-118).

Output - in Gallons Per Minute (Depth to Water)

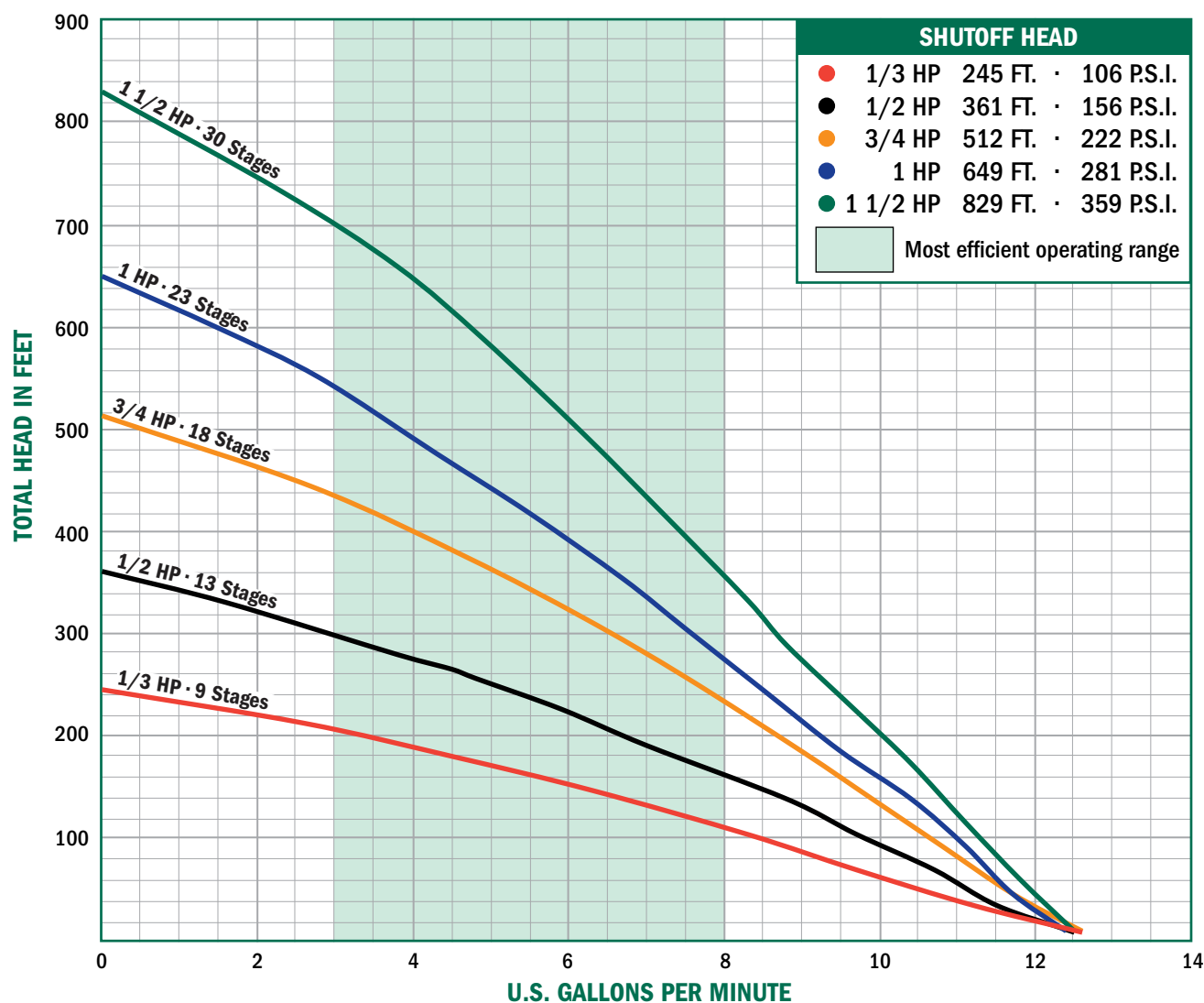
1/3 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'
0	11.7	10.6	9.5	8.4	7.3	6.1	4.8	3.4	1.8	
30	8.6	7.5	6.4	5.1	3.8	2.2				
40	7.6	6.4	5.2	3.9	2.3					
50	6.5	5.3	4.0	2.5						

1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
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							

3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'
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	4.3	3.6	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						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

J Series - 5 GPM



Submersible Pumps

	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
1 HP	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			

	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'
1 1/2 HP	0	15.9	15.1	14.3	13.4	12.4	11.4	10.4	9.2	7.9	6.5	5.0	3.4	1.6
	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			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 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.

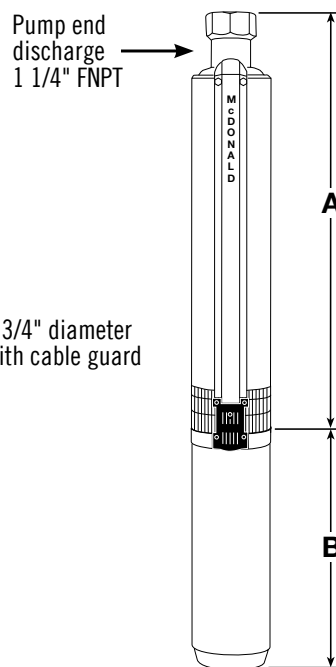
All V Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 2 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 2 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23030V2A*	1/3	6	115	11.1"	9.53"	24
23030V2*	1/3	6	230	11.1"	9.53"	25
23050V2A	1/2	9	115	13.48"	9.53"	26
23050V2	1/2	9	230	13.48"	9.53"	26
23075V2	3/4	12	230	15.92"	10.66"	30
23100V2	1	16	230	19.11"	11.75"	34
23150V2	1 1/2	21	230	23.58"	15.12"	46

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23030V3A*	1/3	6	115	11.1"	9.53"	25
23030V3*	1/3	6	230	11.1"	9.53"	25
23050V3A	1/2	9	115	13.48"	9.53"	26
23050V3	1/2	9	230	13.48"	9.53"	26
23075V3	3/4	12	230	15.92"	10.66"	30
23100V3	1	16	230	19.11"	11.75"	35
23150V3	1 1/2	21	230	23.58"	13.62"	41
23200V3	2	26	230	28.34"	15.12"	49



4" Stainless Steel Pump Ends

Model No.	HP	WT.
23030V	1/3	9
23050V	1/2	10
23075V	3/4	13
23100V	1	11
23150V	1 1/2	16
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 108-118).

Output - in Gallons Per Minute (Depth to Water)

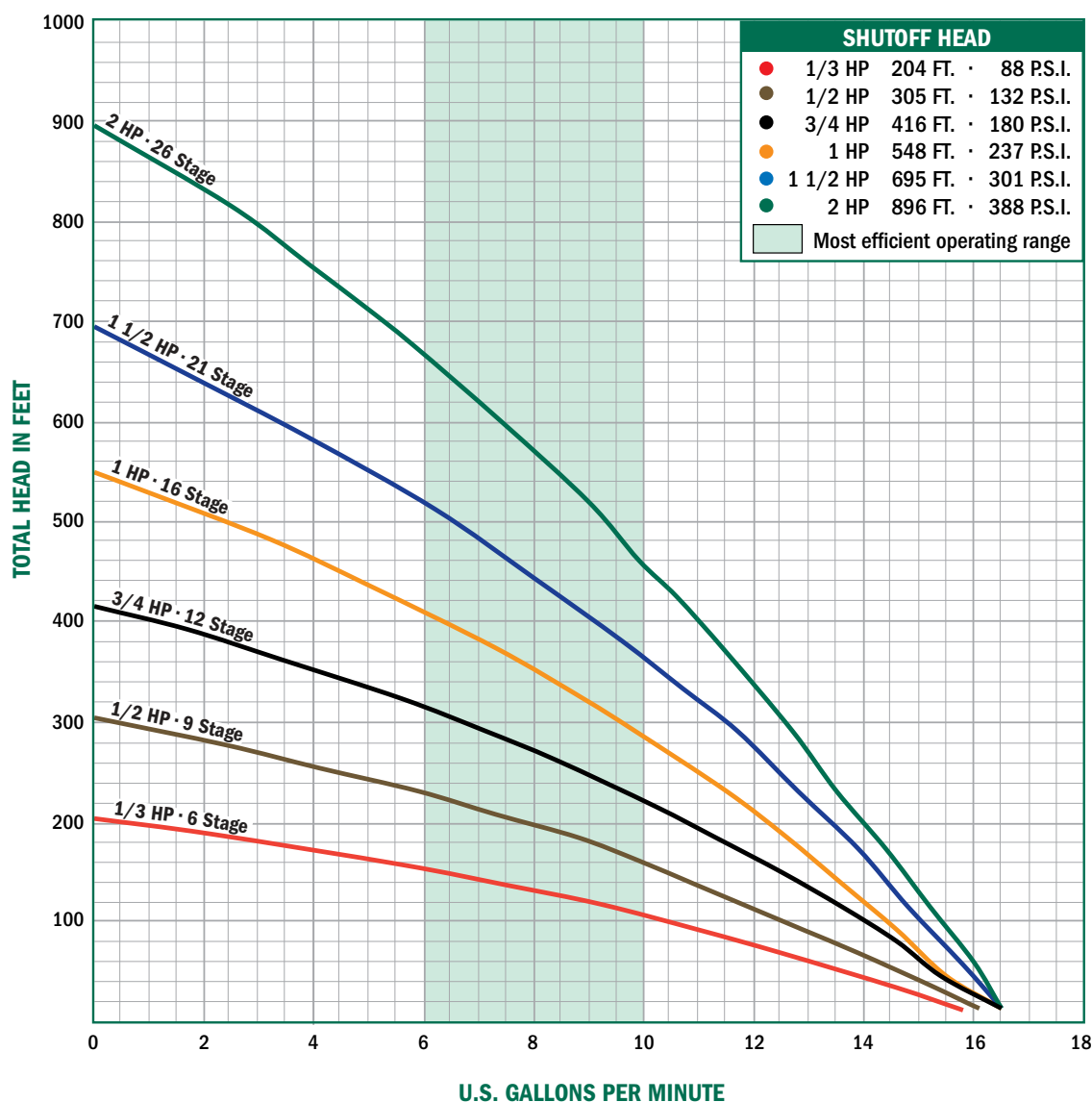
PSI	25'	50'	75'	100'	125'	150'	175'
1/3 HP	0	15.1	13.7	12.2	10.5	8.6	6.4
	30	10.9	9.0	6.9	4.4	1.3	
	40	9.2	7.1	4.6	1.6		
	50	7.2	4.8	1.9			

PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
1/2 HP	0	15.6	14.6	13.6	12.6	11.5	10.4	9.2	7.8	6.3	4.5
	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				

PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'
3/4 HP	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
	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 Series - 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	3.5
	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	3.4	1.6
	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 Series - 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 K Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).

Two Wire Single Phase

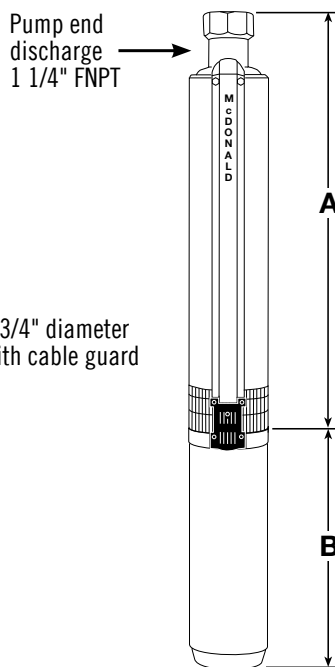
Model No.	HP	Stages	Volt	A	B	WT.
23030K2A*	1/3	5	115	10.51"	9.53"	18
23030K2*	1/3	5	230	10.51"	9.53"	18
23050K2A	1/2	7	115	12.15"	9.53"	25
23050K2	1/2	7	230	12.15"	9.53"	25
23075K2	3/4	9	230	13.84"	10.66"	28
23100K2	1	12	230	16.39"	11.75"	32
23150K2	1 1/2	16	230	21.05"	15.12"	40

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23030K3A*	1/3	5	115	10.51"	9.53"	21
23030K3*	1/3	5	230	10.51"	9.53"	21
23050K3A	1/2	7	115	12.15"	9.53"	28
23050K3	1/2	7	230	12.15"	9.53"	28
23075K3	3/4	9	230	13.84"	10.66"	31
23100K3	1	12	230	16.39"	11.75"	35
23150K3	1 1/2	16	230	21.05"	13.62"	44
23200K3	2	20	230	24.48"	15.12"	46
23300K3	3	26	230	29.56"	19.06"	70
23500K3	5	33	230	35.49"	29.62"	89

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
23150K3Z	1 1/2	16	230	21.05"	15.82"	41
23150K3Y	1 1/2	16	460	21.05"	15.82"	41
23200K3Z	2	20	230	24.48"	17.69"	43
23300K3Z	3	26	230	29.56"	19.20"	60
23500K3Z	5	33	230	35.49"	23.62"	74



4" Stainless Steel Pump Ends

Model No.	HP	WT.
23030K	1/3	7
23050K	1/2	7
23075K	3/4	8
23100K	1	9
23150K	1 1/2	11
23200K	2	14
23300K	3	16
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 108-118).

Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'
1/3 HP	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						

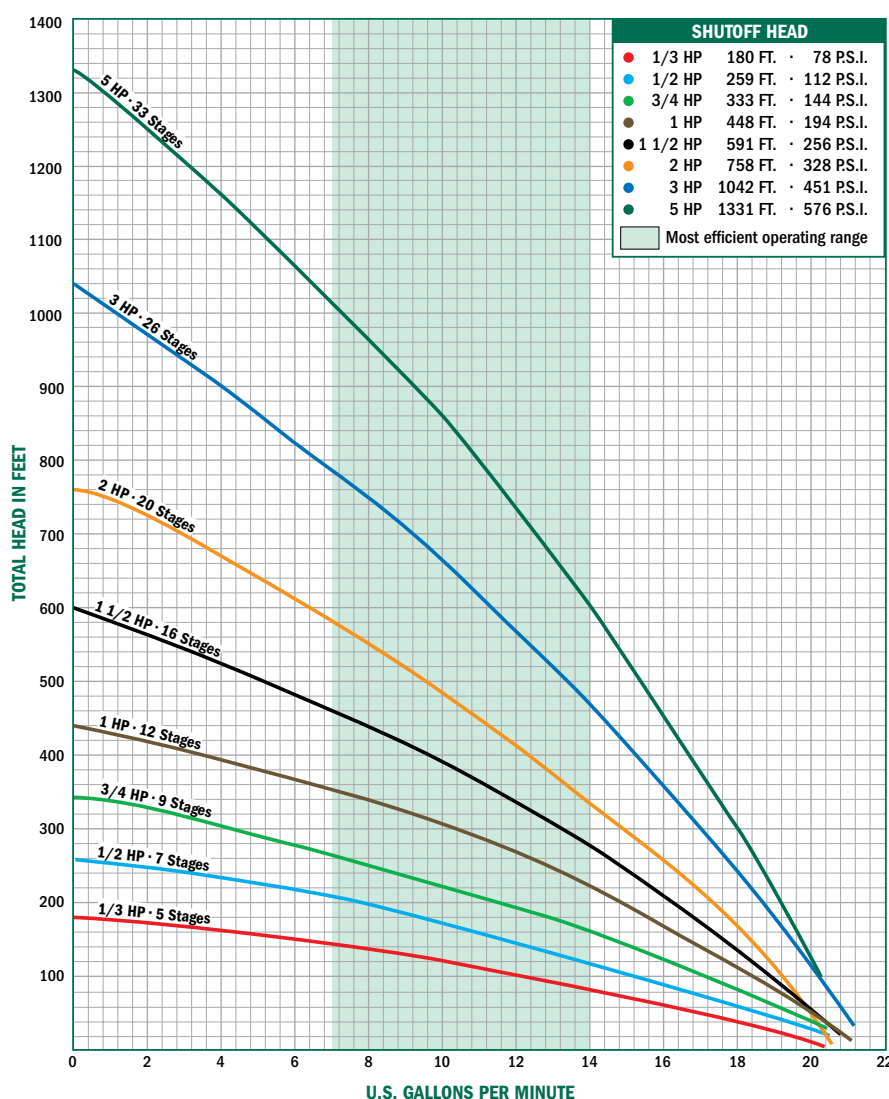
	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
1/2 HP	0	19.90	18.49	16.99	15.40	13.69	11.84	9.79	7.49	4.78	1.32
	30	15.77	14.09	12.27	10.28	8.04	5.44	2.21			
	40	14.22	12.42	10.44	8.22	5.66	2.49				
	50	12.56	10.60	8.40	5.87	2.76					
	60	10.75	8.58	6.08	3.03						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
3/4 HP	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						

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
1 HP	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					

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

K Series - 10 GPM



Submersible Pumps

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

1 1/2 HP	PSI	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		

2 HP	PSI	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			

FRICTION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

3 HP	PSI	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	1.26
	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			

5 HP	PSI	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 Series - 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 L Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/3 to 5 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).

Two Wire Single Phase

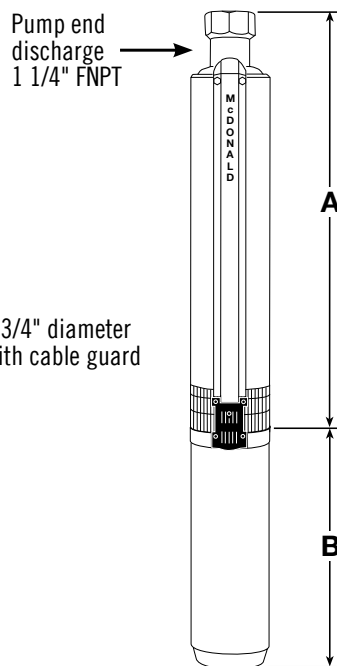
Model No.	HP	Stages	Volt	A	B	WT.
23030L2A*	1/3	5	115	12.02"	9.53"	24
23030L2*	1/3	5	230	12.02"	9.53"	24
23050L2A	1/2	6	115	13.09"	9.53"	24
23050L2	1/2	6	230	13.09"	9.53"	24
23075L2	3/4	8	230	15.25"	10.66"	28
23100L2	1	10	230	17.39"	11.75"	32
23150L2	1 1/2	13	230	20.61"	15.12"	40

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23030L3A*	1/3	5	115	12.02"	9.53"	24
23030L3*	1/3	5	230	12.02"	9.53"	24
23050L3A	1/2	6	115	13.09"	9.53"	24
23050L3	1/2	6	230	13.09"	9.53"	24
23075L3	3/4	8	230	15.25"	10.66"	28
23100L3	1	10	230	17.39"	11.75"	32
23150L3	1 1/2	13	230	20.61"	13.62"	37
23200L3	2	17	230	24.91"	15.12"	44
23300L3	3	23	230	32.73"	19.06"	58
23500L3	5	35	230	45.60"	29.62"	85

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
23150L3Z	1 1/2	13	230	20.61"	11.75"	34
23200L3Z	2	17	230	24.91"	13.62"	41
23300L3Z	3	23	230	32.73"	16.04"	51
23500L3Z	5	35	230	45.60"	23.62"	72



4" Stainless Steel Pump Ends

Model No.	HP	WT.
23030L	1/3	7
23050L	1/2	7
23075L	3/4	8
23100L	1	9
23150L	1 1/2	10
23200L	2	12
23300L	3	15
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 108-118).

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					

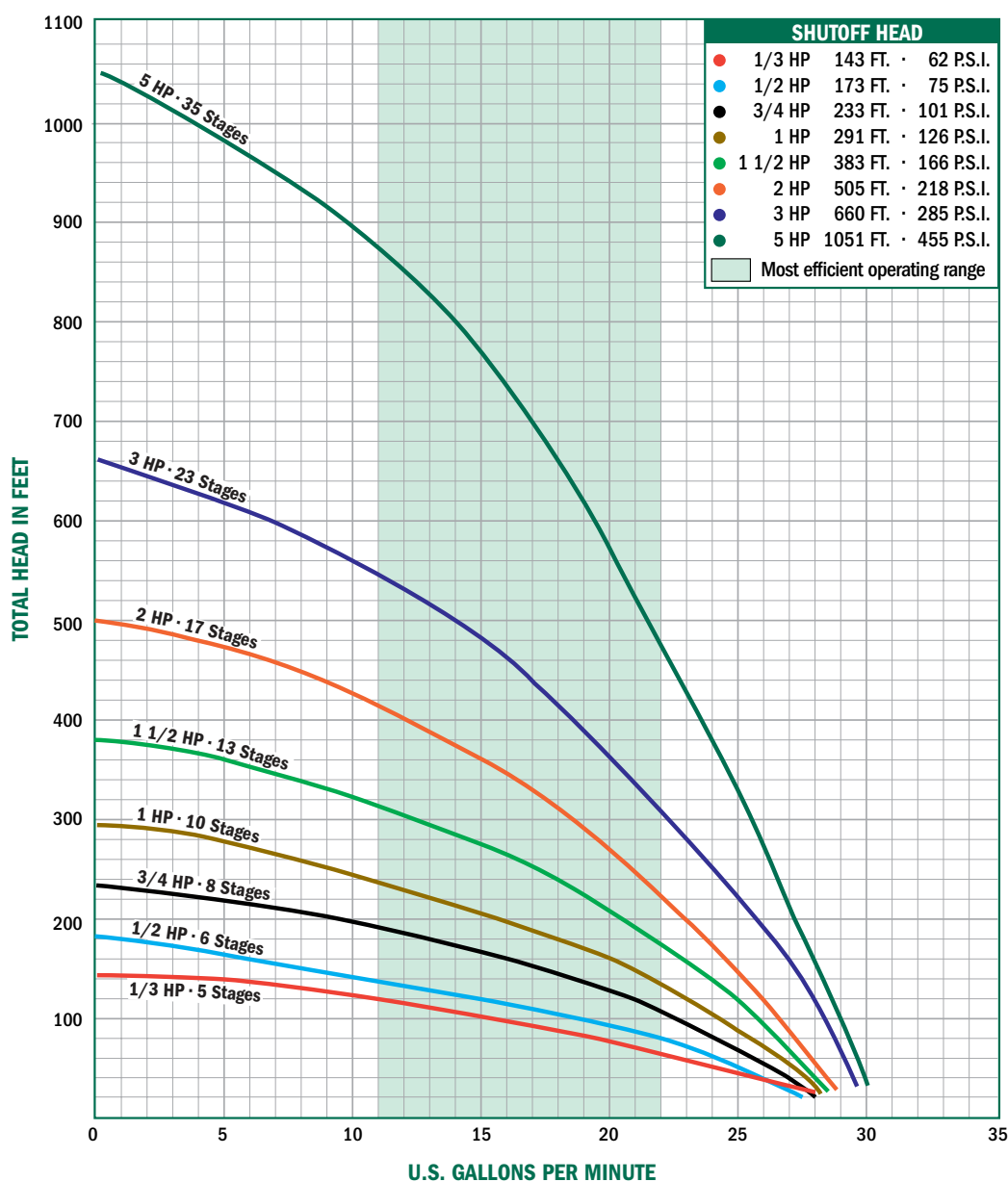
1/2 HP	PSI	25'	50'	75'	100'	125'	150'
0	28.28	25.58	22.58	19.18	15.14	9.84	
30	20.00	16.14	11.23	2.99			
40	16.46	11.66	3.99				
50	12.08	4.85					
60	5.63						

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						

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

L Series - 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			

FRICION 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 Series - 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 P Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP). Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).

Two Wire Single Phase

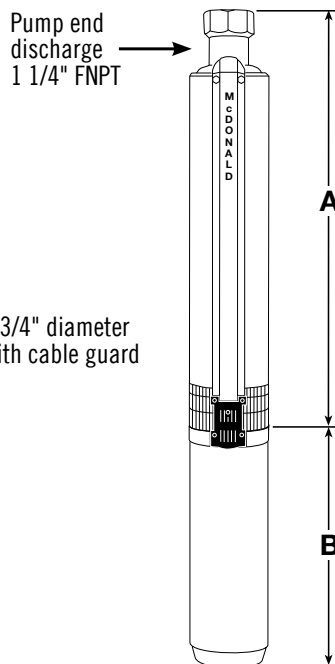
Model No.	HP	Stages	Volt	A	B	WT.
23050P2A	1/2	5	115	12.02"	9.53"	24
23050P2	1/2	5	230	12.02"	9.53"	24
23075P2	3/4	7	230	14.17"	10.66"	28
23100P2	1	9	230	16.32"	11.75"	32
23150P2	1 1/2	12	230	19.54"	15.12"	42

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23050P3A	1/2	5	115	12.02"	9.53"	24
23050P3	1/2	5	230	12.02"	9.53"	24
23075P3	3/4	7	230	14.17"	10.66"	27
23100P3	1	9	230	16.32"	11.75"	32
23150P3	1 1/2	12	230	19.54"	13.62"	38
23200P3	2	14	230	21.69"	15.12"	43
23300P3	3	20	230	29.50"	19.06"	56
23500P3	5	32	230	42.38"	29.62"	84

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
23150P3Z	1 1/2	12	230	19.54"	11.75"	35
23200P3Z	2	14	230	21.69"	13.62"	40
23300P3Z	3	20	230	29.50"	16.04"	49
23500P3Z	5	32	230	42.38"	23.62"	72
23500P3Y	5	32	460	42.38"	23.62"	72



4" Stainless Steel Pump Ends

Model No.	HP	WT.
23050P	1/2	6
23075P	3/4	8
23100P	1	9
23150P	1 1/2	10
23200P	2	11
23300P	3	14
23500P	5	22

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

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					

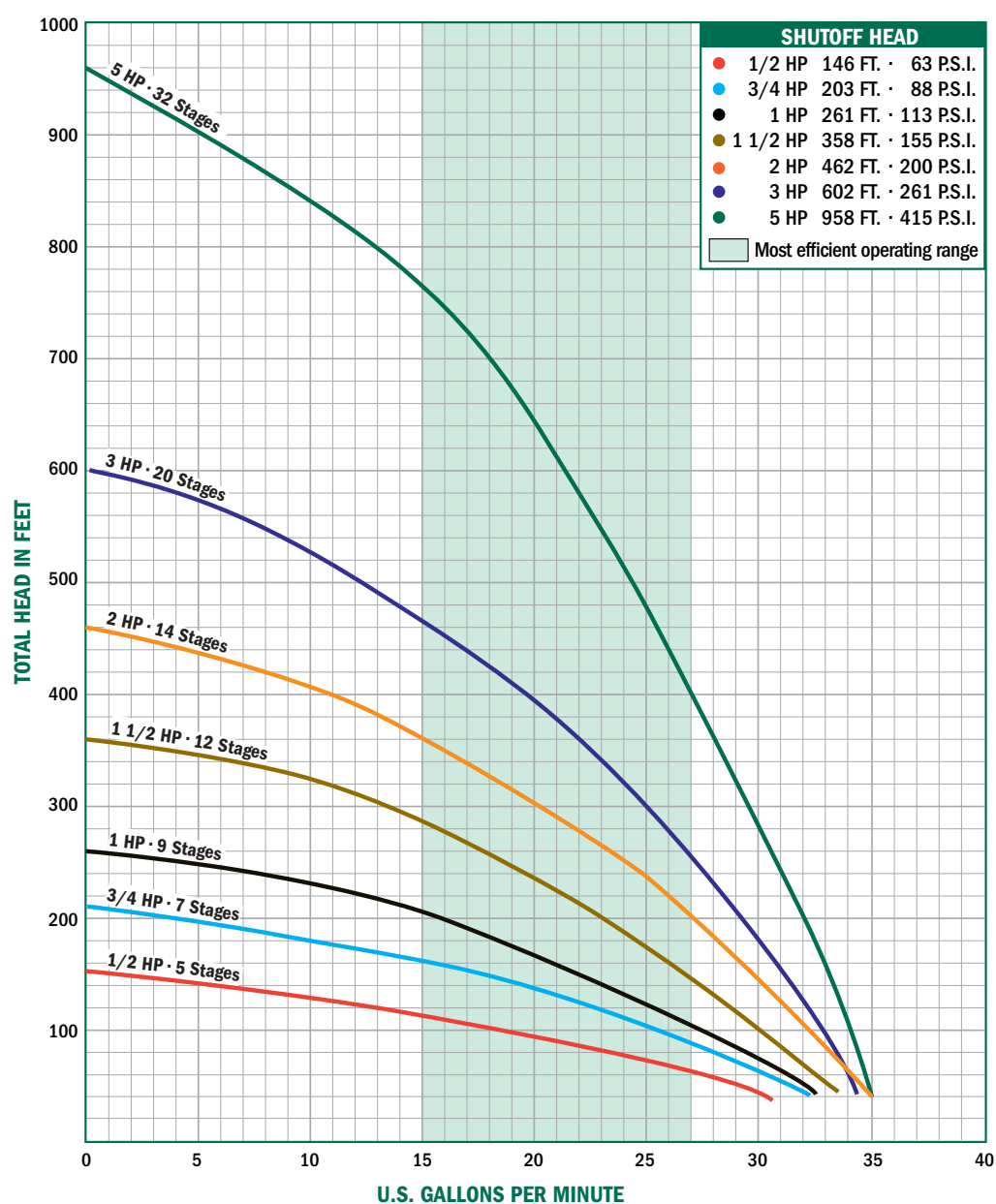
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
0	32.36	29.82	27.06	24.01	20.58	16.54	11.39	2.53	
30	24.74	21.40	17.53	12.71	5.44				
40	21.67	17.85	13.13	6.20					
50	18.16	13.54	6.91						
60	13.93	7.56							

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				

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 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 Series - 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 M Series Stainless Steel Pumps come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP).

Two wire models up to 1 1/2 and three wire models up to 5 horse power (HP).

Two Wire Single Phase

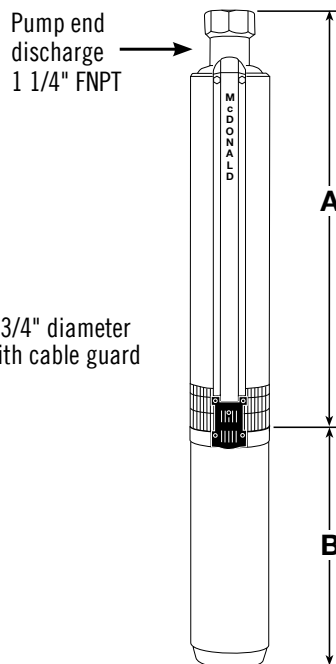
Model No.	HP	Stages	Volt	A	B	WT.
23050M2A	1/2	4	115	10.94"	9.53"	24
23050M2	1/2	4	230	10.94"	9.53"	24
23075M2	3/4	5	230	12.02"	10.66"	26
23100M2	1	7	230	14.17"	11.75"	31
23150M2	1 1/2	9	230	16.32"	15.12"	40

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	WT.
23050M3A	1/2	4	115	10.94"	9.53"	24
23050M3	1/2	4	230	10.94"	9.53"	24
23075M3	3/4	5	230	12.02"	10.66"	26
23100M3	1	7	230	14.17"	11.75"	30
23150M3	1 1/2	9	230	16.32"	13.62"	36
23200M3	2	12	230	19.54"	15.12"	41
23300M3	3	16	230	23.83"	19.06"	53
23500M3	5	25	230	34.88"	29.62"	83

Three Wire** Three Phase

Model No.	HP	Stages	Volt	A	B	WT.
23150M3Z	1 1/2	9	230	16.32"	11.75"	32
23150M3Y	1 1/2	9	460	16.32"	11.75"	33
23200M3Z	2	12	230	19.54"	13.62"	38
23200M3Y	2	12	460	19.54"	13.62"	38
23300M3Z	3	16	230	23.83"	16.04"	46
23300M3Y	3	16	460	23.83"	16.04"	46
23500M3Z	5	25	230	34.88"	23.62"	69
23500M3Y	5	25	460	34.88"	23.62"	69



4" Stainless Steel Pump Ends

Model No.	HP	WT.
23050M	1/2	7
23075M	3/4	7
23100M	1	8
23150M	1 1/2	9
23200M	2	10
23300M	3	11
23500M	5	18

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

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			

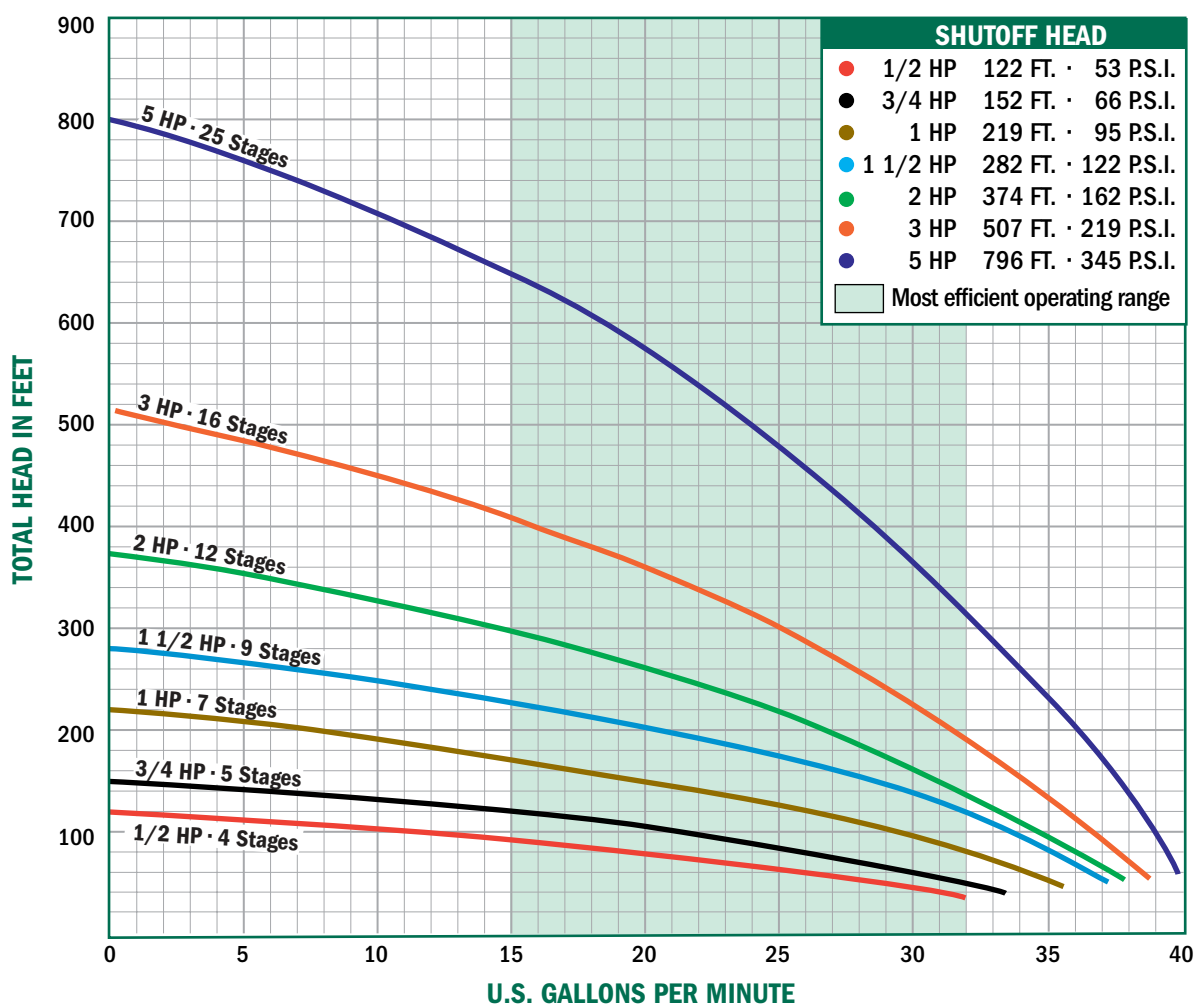
3/4 HP	PSI	25'	50'	75'	100'	125'	150'
	0	36.08	31.97	27.33	21.88	14.91	2.74
	30	23.22	16.71	6.80			
	40	17.27	7.85				
	50	8.81					

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						

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

M Series - 25 GPM



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			

FRICION LOSSES IN RISER PIPE HAVE
NOT BEEN CALCULATED

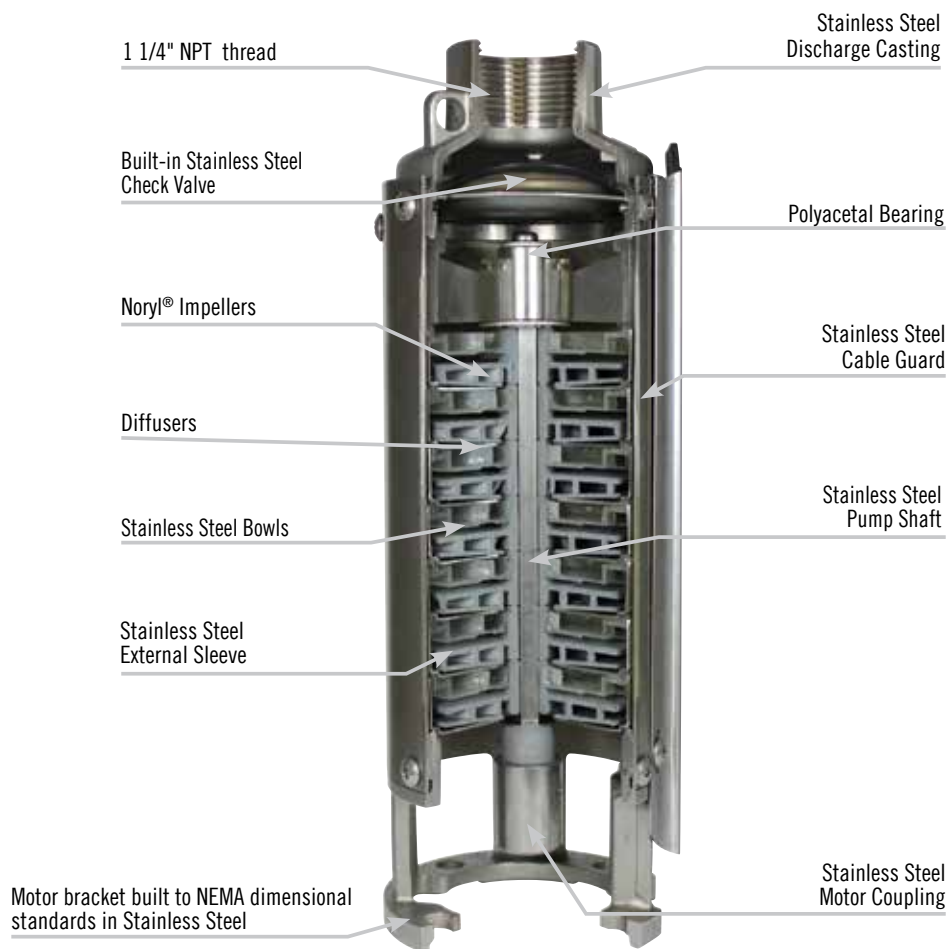
5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'
	0	40.4	38.9	37.4	35.8	34.1	32.4	30.6	28.6	26.5	24.2	21.6	18.7	15.2	11.0	5.8
	30	38.3	36.8	35.2	33.5	31.7	29.8	27.8	25.6	23.2	20.5	17.4	13.7	9.2	3.5	
	40	37.6	36.0	34.4	32.7	30.9	28.9	26.8	24.5	22.0	19.1	15.8	11.7	6.7		
	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			

24000 Series

A.Y. McDonald offers a full line of 4" submersibles ranging from 1/2 through 5 horsepower, with flow rates ranging from 5 through 25 GPM. Our 24000 submersibles offer peak capacity performance in 5, 7, 10, 15, 20, and 25 GPM models.

Powered by NEMA approved A.Y. McDonald stainless steel motors.

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



Stainless Steel Motor Two or three wire models, with built-in lightning protection on all single phase pumps. Consult factory for three phase.

Cutaway illustrates features and is not indicative of specific model performance.

Locating the code number on the pump



A.Y. McDonald Mfg. Co.
aymcdonald.com

MODEL: 24150J **HP:** 1/1 2

GPM: 5

S/N: T1107010010-0065

DATE CODE: D C 12C

MADE IN TAIWAN

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

- Pump Model
- Date of manufacture
- Motor HP
- Pump Series

MATERIALS OF CONSTRUCTION

Discharge Head	Stainless Steel 304, discharge 1 1/4" NPT from 5 GPM to 25 GPM series
Motor Adapter	Stainless Steel 304, NEMA standard
Check Valve	Stainless Steel 304
External Sleeve	Stainless Steel 304 polished
Impellers	Noryl
Diffusers	Polycarbonate
Bearing	Polyacetal
Shaft Coupling	Stainless Steel 304
Strainer	Thermoplastic
Shaft	Stainless Steel 304
Cable Guard	Stainless Steel 304

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 Series - 5 GPM

All J Series Stainless Steel Submersible Pumps are designed to pump within the 5 GPM range. Sizes are available from 1/2 to 1 1/2 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

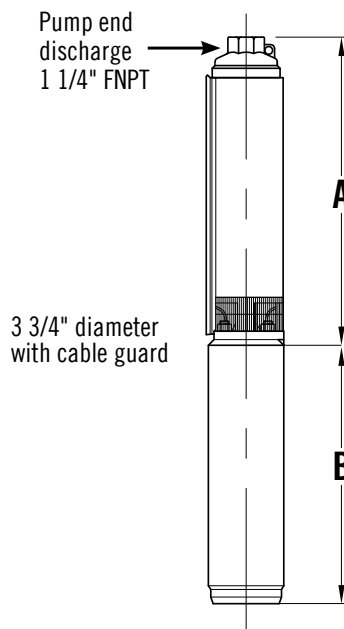
Model No.	HP	Stages	Volt	A	B	Wt.
24050J2A	1/2	12	115	14.1	9.5	26.0
24050J2	1/2	12	230	14.1	9.5	26.0
24075J2	3/4	15	230	16.2	10.6	30.1
24100J2	1	20	230	19.8	11.7	34.8
24150J2	1 1/2	26	230	25.3	15.1	43.8

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050J3A	1/2	12	115	14.1	9.5	27.0
24050J3	1/2	12	230	14.1	9.5	27.0
24075J3	3/4	15	230	16.2	10.6	30.1
24100J3	1	20	230	19.8	11.7	34.8
24150J3	1 1/2	26	230	25.3	13.6	40.8

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150J3Z	1 1/2	26	230	25.3	11.7	36.8



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24050J	1/2	8
24075J	3/4	9
24100J	1	11
24150J	1 1/2	13

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

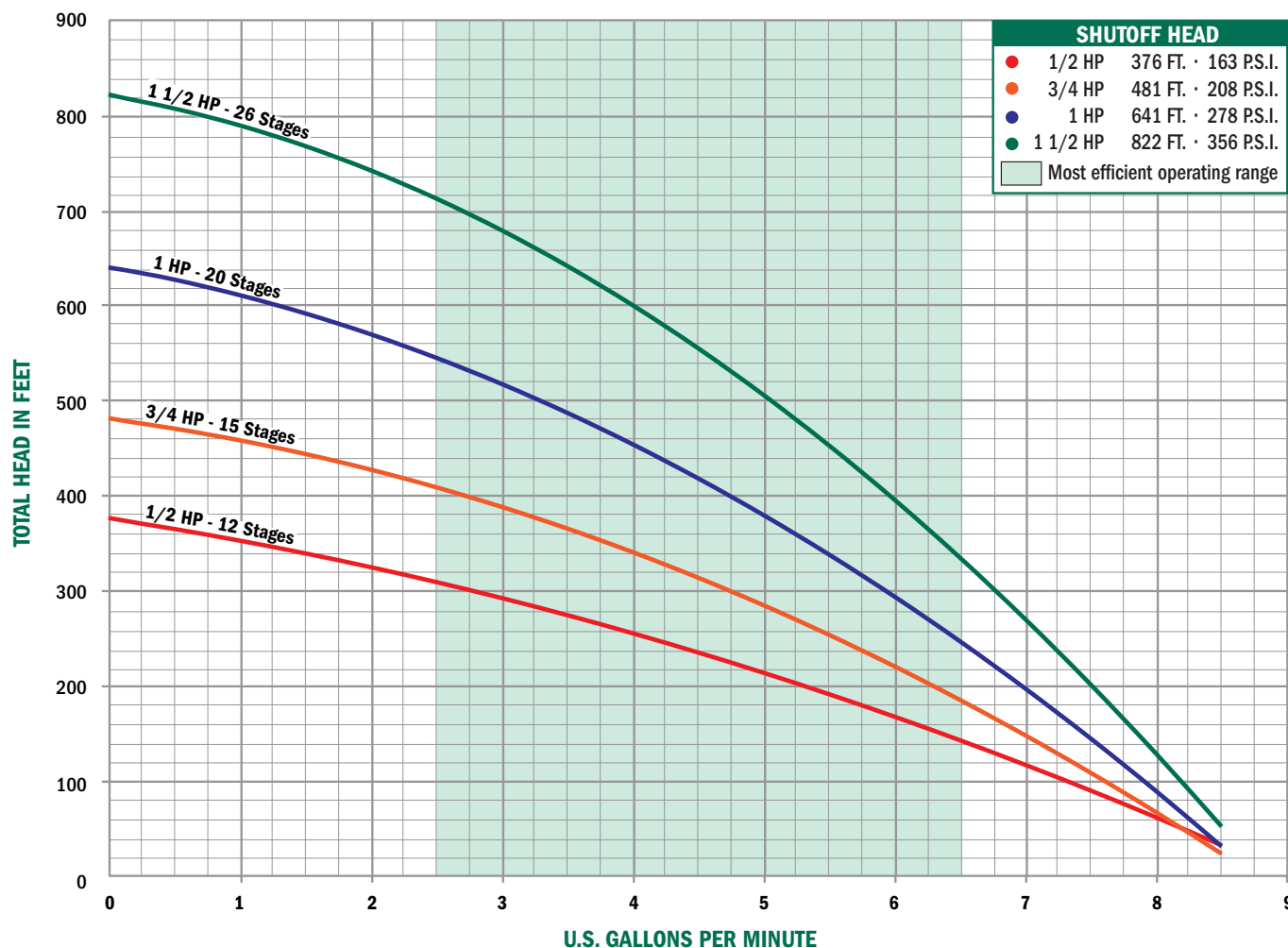
Output - in Gallons Per Minute (Depth to Water)

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
1/2 HP	0	8.6	8.2	7.8	7.3	6.8	6.4	5.8	5.3	4.7	4.1	3.5	2.8	2.0
	30	7.4	7.0	6.5	6.0	5.4	4.9	4.3	3.6	2.9	2.2	1.3		
	50	6.5	6.0	5.5	5.0	4.4	3.7	3.1	2.3	1.5				
	60	6.1	5.6	5.0	4.4	3.8	3.1	2.4	1.5					

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'
3/4 HP	0	8.5	8.2	7.9	7.6	7.3	7.0	6.6	6.3	5.9	5.6	5.2	4.7	4.3	3.8	3.3	2.7	2.1	1.3
	30	7.7	7.4	7.0	6.7	6.4	6.0	5.6	5.3	4.8	4.4	3.9	3.4	2.9	2.2	1.5			
	50	7.1	6.8	6.4	6.1	5.7	5.3	4.9	4.5	4.0	3.5	3.0	2.3	1.6					
	60	6.8	6.5	6.1	5.7	5.3	4.9	4.5	4.0	3.5	3.0	2.4	1.7						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

J Series - 5 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'	500'	525'	550'	575'	600'
	0	8.5	8.3	8.1	7.9	7.7	7.4	7.2	7.0	6.7	6.5	6.2	5.9	5.7	5.4	5.1	4.7	4.4	4.1	3.7	3.3	2.9	2.4	1.9	1.3
	30	8.0	7.7	7.5	7.3	7.0	6.8	6.5	6.3	6.0	5.7	5.4	5.1	4.8	4.5	4.1	3.8	3.4	3.0	2.5	2.0	1.4			
	50	7.5	7.3	7.1	6.8	6.6	6.3	6.0	5.8	5.5	5.2	4.9	4.5	4.2	3.8	3.5	3.0	2.6	2.1	1.5					
	60	7.3	7.1	6.8	6.6	6.3	6.1	5.8	5.5	5.2	4.9	4.6	4.2	3.9	3.5	3.1	2.6	2.1	1.6						

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'
	0	8.5	8.2	7.9	7.5	7.1	6.8	6.4	6.0	5.5	5.1	4.6	4.0	3.4	2.7	1.9		
	30	8.1	7.7	7.4	7.0	6.6	6.2	5.8	5.4	4.9	4.4	3.8	3.1	2.4	1.5			
	50	7.7	7.4	7.0	6.7	6.3	5.8	5.4	4.9	4.4	3.8	3.2	2.5	1.6				
	60	7.6	7.2	6.9	6.5	6.1	5.6	5.2	4.7	4.1	3.5	2.9	2.1					

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 7 GPM

All V Series Stainless Steel Submersible Pumps are designed to pump within the 7 GPM range. Sizes are available from 1/2 to 2 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

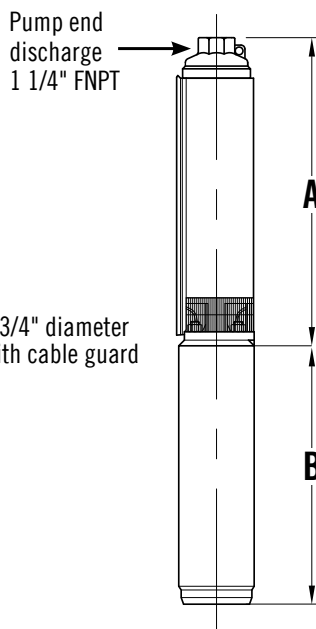
Model No.	HP	Stages	Volt	A	B	Wt.
24050V2A	1/2	10	115	13.0	9.5	25.3
24050V2	1/2	10	230	13.0	9.5	25.3
24075V2	3/4	13	230	15.2	10.6	29.4
24100V2	1	17	230	17.9	11.7	33.9
24150V2	1 1/2	22	230	21.4	15.1	42.9

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050V3A	1/2	10	115	13.0	9.5	26.3
24050V3	1/2	10	230	13.0	9.5	26.3
24075V3	3/4	13	230	15.2	10.6	29.4
24100V3	1	17	230	17.9	11.7	33.9
24150V3	1 1/2	22	230	21.5	13.6	39.9
24200V3	2	27	230	26.6	15.1	47.5

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150V3Z	1 1/2	22	230	21.5	11.7	35.9
24200V3Z	2	27	230	26.6	13.6	42.5



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24050V	1/2	8
24075V	3/4	9
24100V	1	10
24150V	1 1/2	12
24200V	1 1/2	15

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

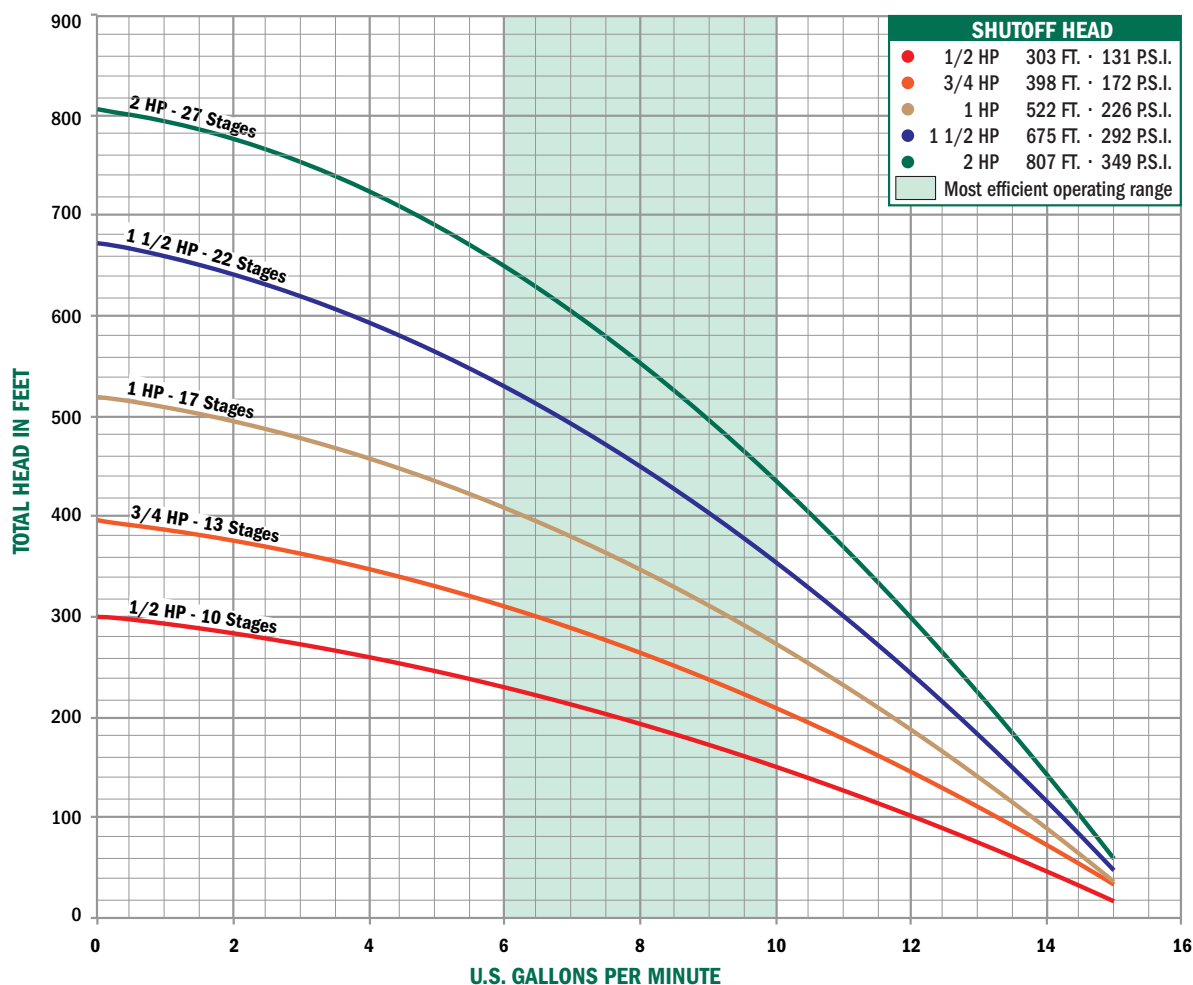
	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
1/2 HP	0	14.8	14.0	13.1	12.2	11.2	10.1	9.0	7.8	6.4	4.9	3.0
	30	12.4	11.4	10.4	9.3	8.1	6.7	5.2	3.5	1.1		
	50	10.5	9.5	8.3	7.0	5.5	3.8	1.5				
	60	9.5	8.4	7.1	5.6	3.9	1.7					

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'
3/4 HP	0	15.3	14.6	14.0	13.4	12.7	11.9	11.2	10.4	9.5	8.6	7.7	6.6	5.4	4.0	2.3
	30	13.5	12.8	12.1	11.4	10.6	9.7	8.9	7.9	6.8	5.7	4.3	2.7			
	50	12.2	11.5	10.7	9.9	9.0	8.0	7.0	5.9	4.6	3.0					
	60	11.5	10.8	9.9	9.1	8.1	7.1	6.0	4.7	3.1	1.0					

	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'	475'	500'
1 HP	0	15.2	14.8	14.3	13.8	13.4	12.8	12.3	11.8	11.2	10.6	10.0	9.4	8.7	8.0	7.2	6.4	5.5	4.5	3.3	1.8
	30	14.0	13.5	13.0	12.4	11.9	11.4	10.8	10.2	9.5	8.9	8.2	7.4	6.6	5.7	4.7	3.6	2.2			
	50	13.0	12.5	12.0	11.4	10.9	10.3	9.6	9.0	8.3	7.5	6.7	5.8	4.9	3.7	2.4					
	60	12.6	12.0	11.5	10.9	10.3	9.7	9.0	8.3	7.6	6.8	5.9	4.9	3.8	2.5						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

V Series - 7 GPM



Submersible Pumps

1 1/2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'
	0	15.0	14.3	13.5	12.8	11.9	11.1	10.1	9.1	8.1	6.8	5.5	3.8	1.7
	30	14.0	13.2	12.4	11.6	10.7	9.8	8.7	7.6	6.3	4.9	3.1		
	50	13.3	12.5	11.7	10.8	9.8	8.8	7.7	6.4	5.0	3.2			
	60	12.9	12.1	11.3	10.4	9.4	8.3	7.1	5.8	4.2	2.2			

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'
	0	15.1	14.6	14.0	13.3	12.7	12.0	11.3	10.6	9.8	9.0	8.1	7.1	6.0	4.8	3.2	0.7
	30	14.3	13.7	13.1	12.4	11.8	11.0	10.3	9.5	8.7	7.7	6.7	5.6	4.2	2.4	0.8	
	50	13.8	13.1	12.5	11.8	11.1	10.4	9.6	8.7	7.8	6.8	5.7	4.3	2.6			
	60	13.5	12.8	12.2	11.5	10.8	10.0	9.2	8.3	7.4	6.3	5.1	3.6	1.5			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

K Series - 10 GPM

All K Series Stainless Steel Submersible Pumps are designed to pump within the 10 GPM range. Sizes are available from 1/2 to 5 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

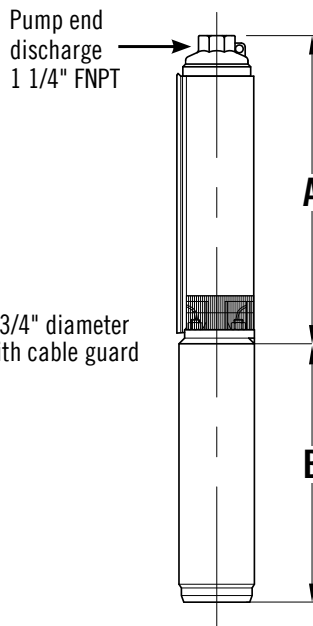
Model No.	HP	Stages	Volt	A	B	Wt.
24050K2A	1/2	7	115	10.7	9.5	24.2
24050K2	1/2	7	230	10.7	9.5	24.2
24075K2	3/4	10	230	12.8	10.6	28.3
24100K2	1	12	230	14.1	11.7	32.0
24150K2	1 1/2	17	230	17.6	15.1	40.7

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050K3A	1/2	7	115	10.7	9.5	25.2
24050K3	1/2	7	230	10.7	9.5	25.2
24075K3	3/4	10	230	12.8	10.6	28.3
24100K3	1	12	230	14.1	11.7	32.0
24150K3	1 1/2	17	230	17.6	13.6	37.7
24200K3	2	20	230	19.6	15.1	43.8
24300K3	3	27	230	26.0	19.0	54.3
24500K3	5	42	230	36.1	29.2	90.0

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150K3Z	1 1/2	17	230	17.6	11.7	33.7
24200K3Z	2	20	230	19.6	13.6	38.8
24300K3Z	3	27	230	26.0	16.0	48.3
24500K3Z	5	42	230	36.1	23.2	75.0



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24050K	1/2	8
24075K	3/4	9
24100K	1	10
24150K	1 1/2	12
24200K	1 1/2	15

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

PSI	25'	50'	75'	100'	125'	150'	175'	200'
0	19.2	17.8	16.3	14.7	12.9	10.9	8.5	5.2
30	15.1	13.4	11.4	9.1	6.1			
50	11.7	9.5	6.6					
60	9.7	6.9						

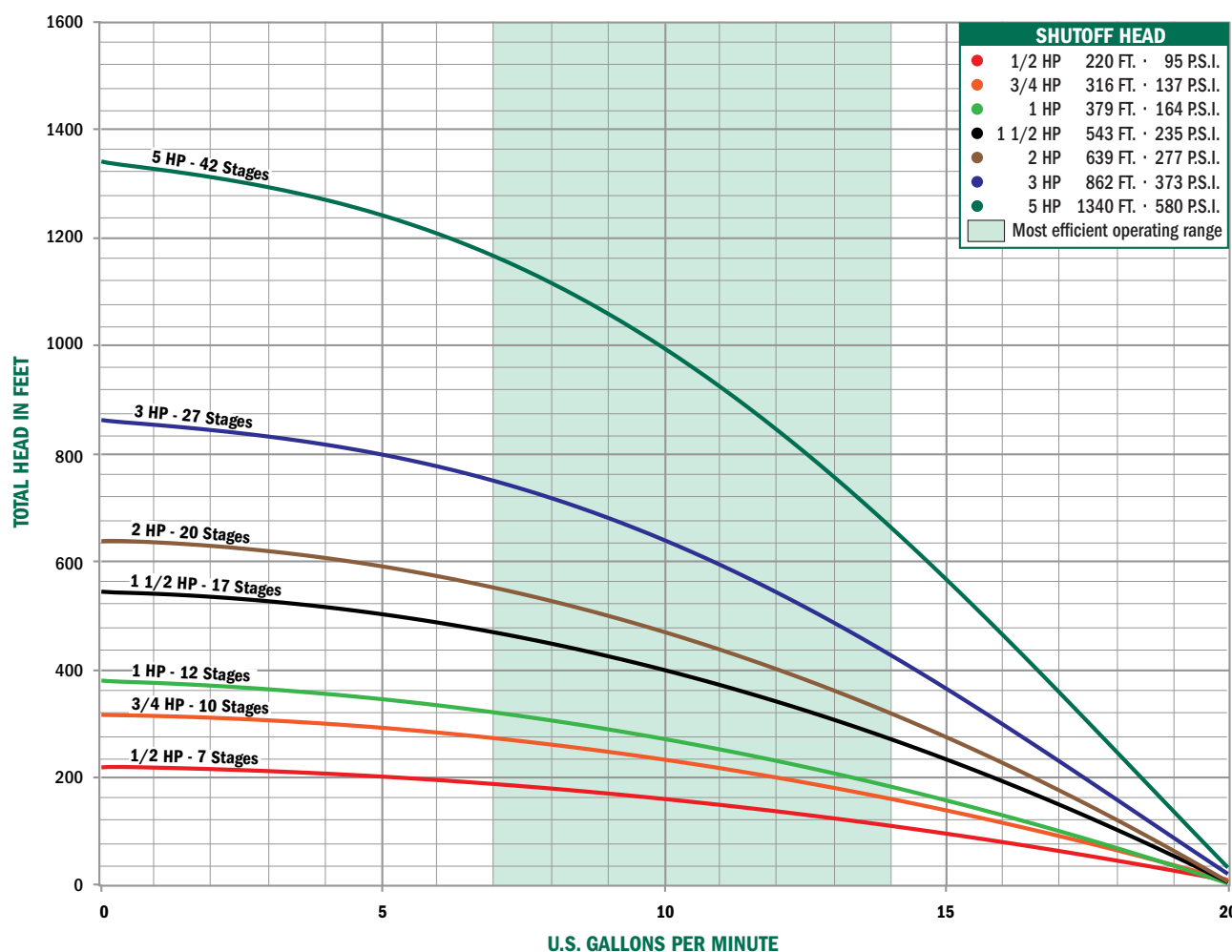
PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0	19.5	18.6	17.6	16.7	15.6	14.5	13.3	12.0	10.5	8.8	6.8	3.9
30	16.9	15.9	14.8	13.6	12.3	10.9	9.2	7.3	4.7			
50	14.9	13.8	12.5	11.1	9.5	7.6	5.2					
60	13.9	12.6	11.2	9.6	7.8	5.4						

PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'
0	19.4	18.6	17.8	17.0	16.2	15.3	14.3	13.3	12.3	11.1	9.8	8.4	6.7	4.5	1.0
30	17.2	16.4	15.5	14.6	13.6	12.5	11.4	10.1	8.7	7.1	5.1	2.1			
50	15.6	14.7	13.7	12.7	11.5	10.3	8.9	7.3	5.4	2.7					
60	14.8	13.8	12.8	11.6	10.4	9.0	7.5	5.6	3.0						

PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'
0	19.1	18.1	17.0	15.8	14.6	13.2	11.7	10.0	7.9	5.2
30	17.7	16.6	15.4	14.1	12.6	11.1	9.2	7.0	3.7	
50	16.6	15.5	14.2	12.8	11.2	9.4	7.2	4.0		
60	16.1	14.9	13.5	12.1	10.4	8.4	5.9			

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

K Series - 10 GPM



Submersible Pumps

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
	0	19.3	18.4	17.5	16.5	15.5	14.4	13.3	12.0	10.6	9.0	7.1	4.5
	30	18.1	17.1	16.2	15.1	14.0	12.8	11.5	10.0	8.3	6.2	3.0	
	50	17.2	16.2	15.2	14.1	12.9	11.6	10.1	8.4	6.4	3.3		
	60	16.8	15.8	14.7	13.6	12.3	10.9	9.4	7.5	5.1			

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'
	0	19.6	18.9	18.2	17.4	16.7	16.0	15.2	14.4	13.6	12.8	11.9	10.9	9.8	8.5	7.0	4.9	1.4
	30	18.6	17.9	17.2	16.4	15.7	14.9	14.1	13.3	12.4	11.5	10.5	9.3	8.0	6.3	3.8		
	50	17.9	17.2	16.5	15.8	15.0	14.2	13.4	12.5	11.6	10.5	9.4	8.1	6.4	4.1			
	60	17.6	16.9	16.2	15.4	14.6	13.8	13.0	12.1	11.2	10.0	8.8	7.4	5.5				

5 HP	PSI	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	19.8	19.4	18.9	18.5	18.0	17.5	17.1	16.6	16.1	15.7	15.2	14.7	14.2	13.6	13.1	12.5	11.9	11.3	10.6	9.9	9.2	8.3	7.3	6.2	4.7	2.7
	30	19.2	18.7	18.3	17.8	17.4	16.9	16.4	16.0	15.5	15.0	14.5	14.0	13.4	12.9	12.3	11.7	11.1	10.4	9.6	8.8	7.9	6.9	5.7	4.0	1.5	
	50	18.8	18.3	17.9	17.4	16.9	16.5	16.0	15.5	15.0	14.5	14.0	13.5	12.9	12.3	11.7	11.1	10.4	9.7	8.9	8.0	7.0	5.8	4.2			
	60	18.6	18.1	17.6	17.2	16.7	16.2	15.8	15.3	14.8	14.3	13.8	13.2	12.7	12.1	11.5	10.8	10.1	9.3	8.5	7.6	6.5	5.1	3.2			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

L Series - 15 GPM

All L Series Stainless Steel Submersible Pumps are designed to pump within the 15 GPM range. Sizes are available from 1/2 to 5 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050L2A	1/2	5	115	9.3	9.5	23.5
24050L2	1/2	5	230	9.3	9.5	23.5
24075L2	3/4	7	230	10.7	10.6	27.2
24100L2	1	10	230	12.8	11.7	31.1
24150L2	1 1/2	12	230	14.1	15.1	38.7

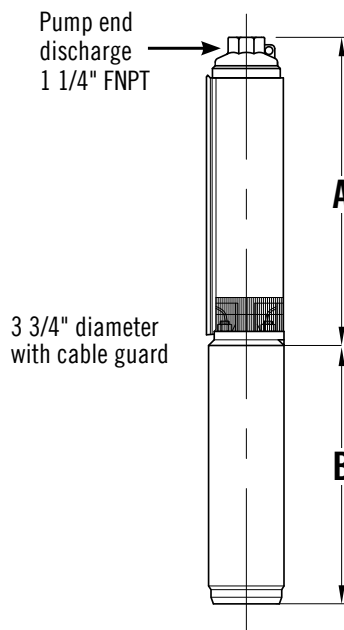
Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050L3A	1/2	5	115	9.3	9.5	24.5
24050L3	1/2	5	230	9.3	9.5	24.5
24075L3	3/4	7	230	10.7	10.6	27.2
24100L3	1	10	230	12.8	11.7	31.1
24150L3	1 1/2	12	230	14.1	13.6	35.7
24200L3	2	17	230	17.6	15.1	42.5
24300L3	3	21	230	20.4	19.0	52.1
24500L3	5	35	230	31.6	29.2	88.0

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150L3Z	1 1/2	12	230	14.1	11.7	31.7
24200L3Z	2	17	230	17.6	13.6	37.5
24300L3Z	3	21	230	20.4	16.0	46.1
24500L3Z	5	35	230	31.6	23.2	73.0

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24050L	1/2	6
24075L	3/4	7
24100L	1	8
24150L	1 1/2	9
24200L	2	10
24300L	3	12
24500L	5	17

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'	125'	150'
	0	22.7	20.4	17.8	14.6	10.6	3.1
	30	15.4	11.7	5.8	9.1	6.1	
	50	7.0	9.5	6.6			

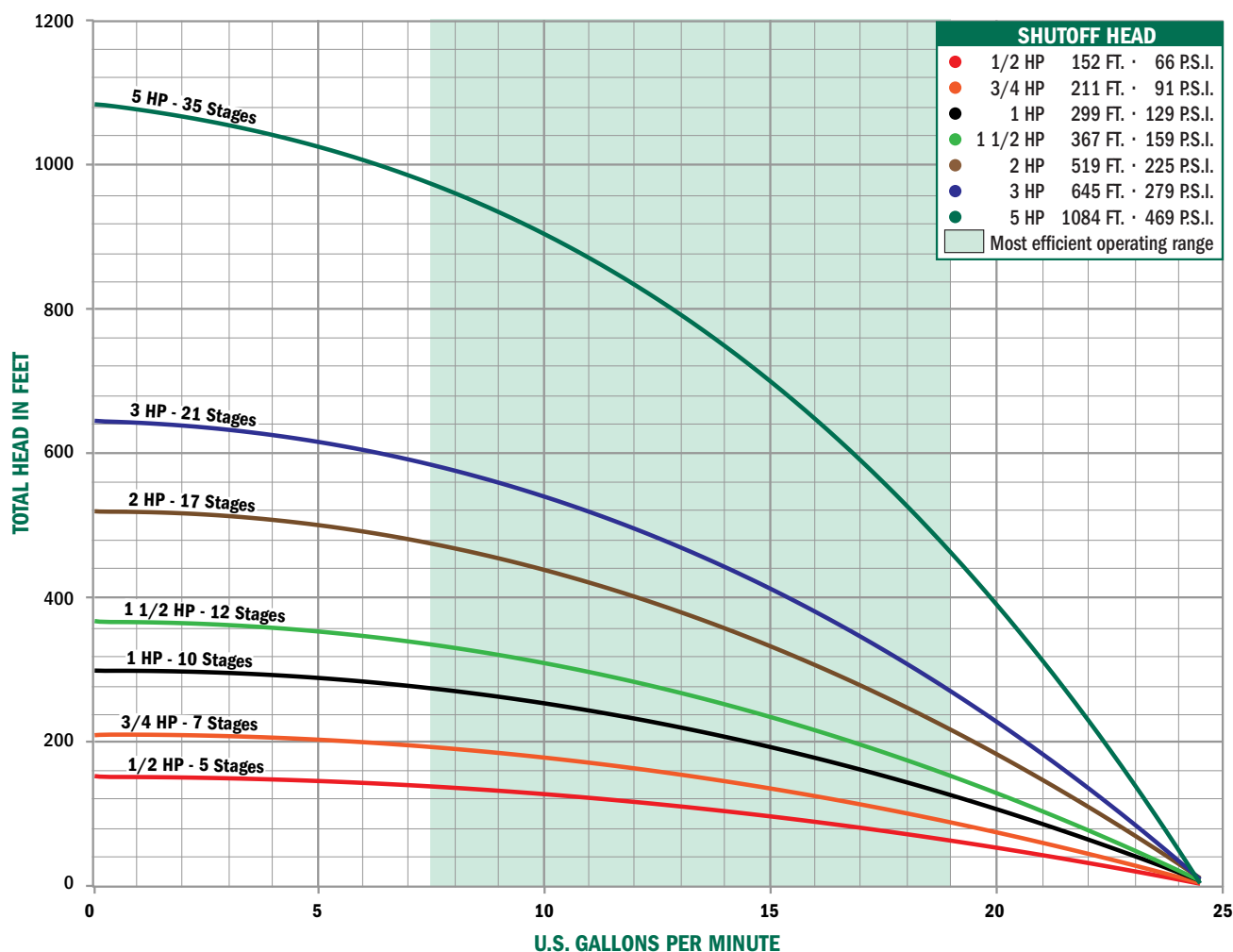
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
	0	23.3	21.7	20.0	18.1	16.0	13.6	10.5	6.0
	30	18.6	16.5	14.2	11.3	7.3			
	50	14.6	11.8	8.1					
	60	12.0	8.4						

1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'
	0	23.8	22.7	21.6	20.4	19.1	17.7	16.2	14.5	12.6	10.4	7.4
	30	20.6	19.4	18.0	6.6	14.9	13.1	10.9	8.2	3.6		
	50	18.2	16.8	15.2	13.4	11.3	8.7	4.7				
	60	16.9	15.3	13.5	11.5	8.9	5.1					

1 1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'
	0	23.9	23.1	22.1	21.2	20.2	19.1	18.0	16.8	15.5	14.1	12.6	10.8	8.6	5.6
	30	21.4	20.4	19.4	18.3	17.1	15.8	14.5	12.9	11.2	9.1	6.4			
	50	19.5	18.4	17.3	16.0	14.7	13.2	11.5	9.5	6.9					
	60	18.5	17.4	16.1	14.8	13.3	11.6	9.6	7.1						

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

L Series - 15 GPM



Submersible Pumps

2 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'
	0	23.6	22.3	21.0	19.5	17.9	16.2	14.3	12.1	9.3	5.1
	30	21.8	20.4	18.9	17.3	15.5	13.5	11.1	7.9		
	50	20.5	19.0	17.4	15.7	13.7	11.3	8.2			
	60	19.8	18.3	16.6	14.8	12.6	10.0	6.3			

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
	0	23.8	22.8	21.7	20.6	19.5	18.2	16.9	15.4	13.7	11.8	9.5	6.4
	30	22.4	21.3	20.2	19.0	17.7	16.3	14.8	13.0	11.0	8.4	4.7	
	50	21.4	20.3	19.1	17.8	16.4	14.9	13.2	11.1	8.6	5.0		
	60	20.9	19.8	18.5	17.2	15.7	14.1	12.3	10.1	7.2	2.0		

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'
	0	24.0	23.5	23.0	22.4	21.8	21.2	20.5	19.9	19.2	18.4	17.6	16.8	15.9	15.0	14.0	12.8	11.5	10.1	8.4	6.3
	30	23.3	22.7	22.2	21.6	20.9	20.3	19.6	18.9	18.1	17.3	16.5	15.6	14.6	13.5	12.3	11.0	9.5	7.7	5.3	
	50	22.8	22.2	21.6	21.0	20.3	19.7	18.9	18.2	17.4	16.6	15.6	14.7	13.6	12.4	11.1	9.6	7.8	5.5		
	60	22.5	21.9	21.3	20.7	20.0	19.3	18.6	17.8	17.0	16.1	15.2	14.2	13.1	11.9	10.5	8.8	6.8			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 20 GPM

All P Series Stainless Steel Submersible Pumps are designed to pump within the 20 GPM range. Sizes are available from 1/2 to 5 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050P2A	1/2	5	115	10.1	9.5	24.0
24050P2	1/2	5	230	10.1	9.5	24.0
24075P2	3/4	6	230	11.0	10.6	27.2
24100P2	1	8	230	12.7	11.7	30.9
24150P2	1 1/2	11	230	15.2	15.1	39.0

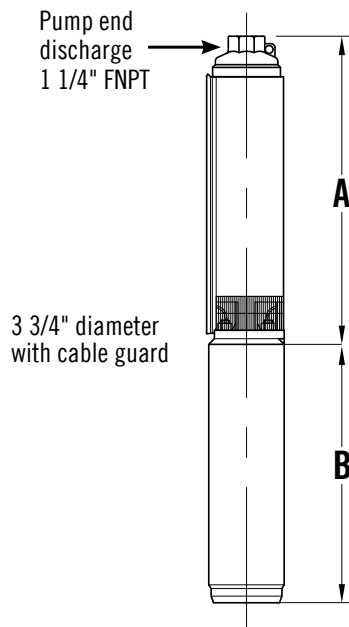
Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24050P3A	1/2	5	115	10.1	9.5	25.0
24050P3	1/2	5	230	10.1	9.5	25.0
24075P3	3/4	6	230	11.0	10.6	27.2
24100P3	1	8	230	12.7	11.7	30.9
24150P3	1 1/2	11	230	15.2	13.6	36.0
24200P3	2	14	230	17.8	15.1	42.1
24300P3	3	19	230	22.0	19.0	51.8
24500P3	5	30	230	32.6	29.2	87.0

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150P3Z	1 1/2	11	230	15.2	11.7	32.0
24200P3Z	2	14	230	17.8	13.6	37.1
24300P3Z	3	19	230	22.0	16.0	45.8
24500P3Z	5	30	230	32.6	23.2	72.0

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24050P	1/2	6
24075P	3/4	7
24100P	1	8
24150P	1 1/2	9
24200P	2	10
24300P	3	12
24500P	5	17

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'	125'
	0	30.3	26.8	22.8	18.0	11.6
	30	19.2	13.3			
	50	4.8				

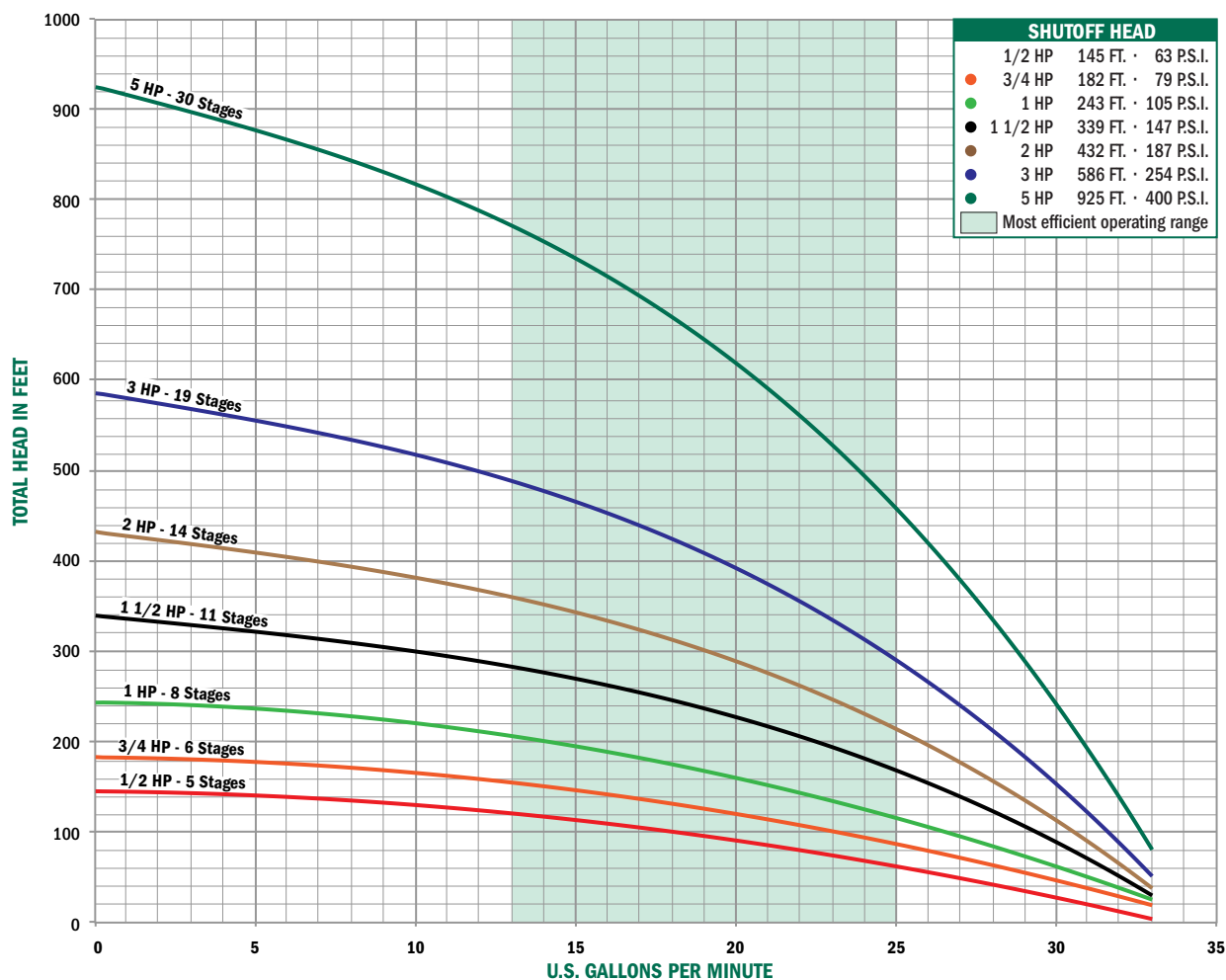
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'
	0	32.3	29.6	26.5	23.1	19.1	14.1	6.2
	30	23.9	20.1	15.4	8.6			
	50	16.2	9.9					
	60	10.5						

1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'
	0	33.0	31.0	28.8	26.5	24.0	21.2	18.0	14.1	8.8
	30	27.1	24.6	21.9	18.7	15.1	10.2			
	50	22.3	19.2	15.7	11.1					
	60	19.5	16.0	11.5						

1 1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
	0	33.2	32.0	30.7	29.4	27.9	26.3	24.5	22.5	20.2	17.5	14.2	9.9	4.1
	30	29.7	28.2	26.6	24.9	23.0	20.7	18.2	15.0	11.0	5.6			
	50	26.9	25.2	23.3	21.1	18.6	15.5	11.7	6.5					
	60	25.3	23.4	21.3	18.8	15.8	12.0	7.0						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

P Series - 20 GPM



Submersible Pumps

2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'
	0	33.5	32.5	31.6	30.5	29.5	28.3	27.1	25.8	24.3	22.8	21.1	19.1	16.9	14.2	10.9	6.8
	30	30.8	29.7	28.6	27.4	26.1	24.7	23.2	21.5	19.6	17.4	14.8	11.8	7.8			
	50	28.8	27.6	26.3	24.9	23.4	21.7	19.9	17.7	15.3	12.3	8.5					
	60	27.7	26.4	25.0	23.5	21.9	20.0	17.9	15.5	12.5	8.8						

3 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'
	0	33.0	31.6	30.1	28.4	26.6	24.6	22.3	19.5	16.2	11.9	5.8
	30	31.0	29.5	27.8	25.9	23.7	21.3	18.3	14.7	9.8	2.8	
	50	29.6	27.9	26.0	23.9	21.5	18.6	15.0	10.2	3.4		
	60	28.8	27.1	25.1	22.8	20.2	17.0	13.0	7.4			

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'
	0	33.5	32.7	31.8	30.8	29.8	28.8	27.7	26.5	25.2	23.8	22.3	20.7	18.8	16.7	14.2	11.2	7.4	2.7
	30	32.3	31.4	30.4	29.4	28.4	27.2	26.0	24.7	23.3	21.7	20.0	18.0	15.8	13.1	9.8	5.7		
	50	31.5	30.5	29.5	28.4	27.3	26.1	24.8	23.4	21.8	20.1	18.2	16.0	13.3	10.1	6.0			
	60	31.0	30.1	29.0	27.9	26.8	25.5	24.2	22.7	21.1	19.3	17.2	14.8	11.9	8.4	3.8			

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

M Series - 25 GPM

All M Series Stainless Steel Submersible Pumps are designed to pump within the 25 GPM range. Sizes are available from 1 to 5 HP. All models are standard with 1 1/4" NPT discharge.

Two Wire Single Phase

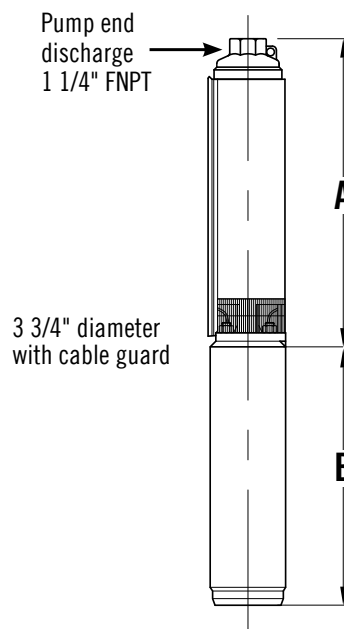
Model No.	HP	Stages	Volt	A	B	Wt.
24100M2	1	7	230	12.6	11.7	30.9
24150M2	1 1/2	9	230	14.6	15.1	38.7

Three Wire** Single Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24100M3	1	7	230	12.6	11.7	30.9
24150M3	1 1/2	9	230	14.6	13.6	35.7
24200M3	2	11	230	16.5	15.1	41.6
24300M3	3	15	230	20.4	19.0	51.4
24500M3	5	26	230	32.5	29.2	86.7

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	Wt.
24150M3Z	1 1/2	9	230	14.6	11.7	31.7
24200M3Z	2	11	230	16.5	13.6	36.6
24300M3Z	3	15	230	20.4	16.0	45.4
24500M3Z	5	26	230	32.5	23.2	71.7



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24100M	1	7
24150M	1 1/2	9
24200M	2	10
24300M	3	12
24500M	5	16

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

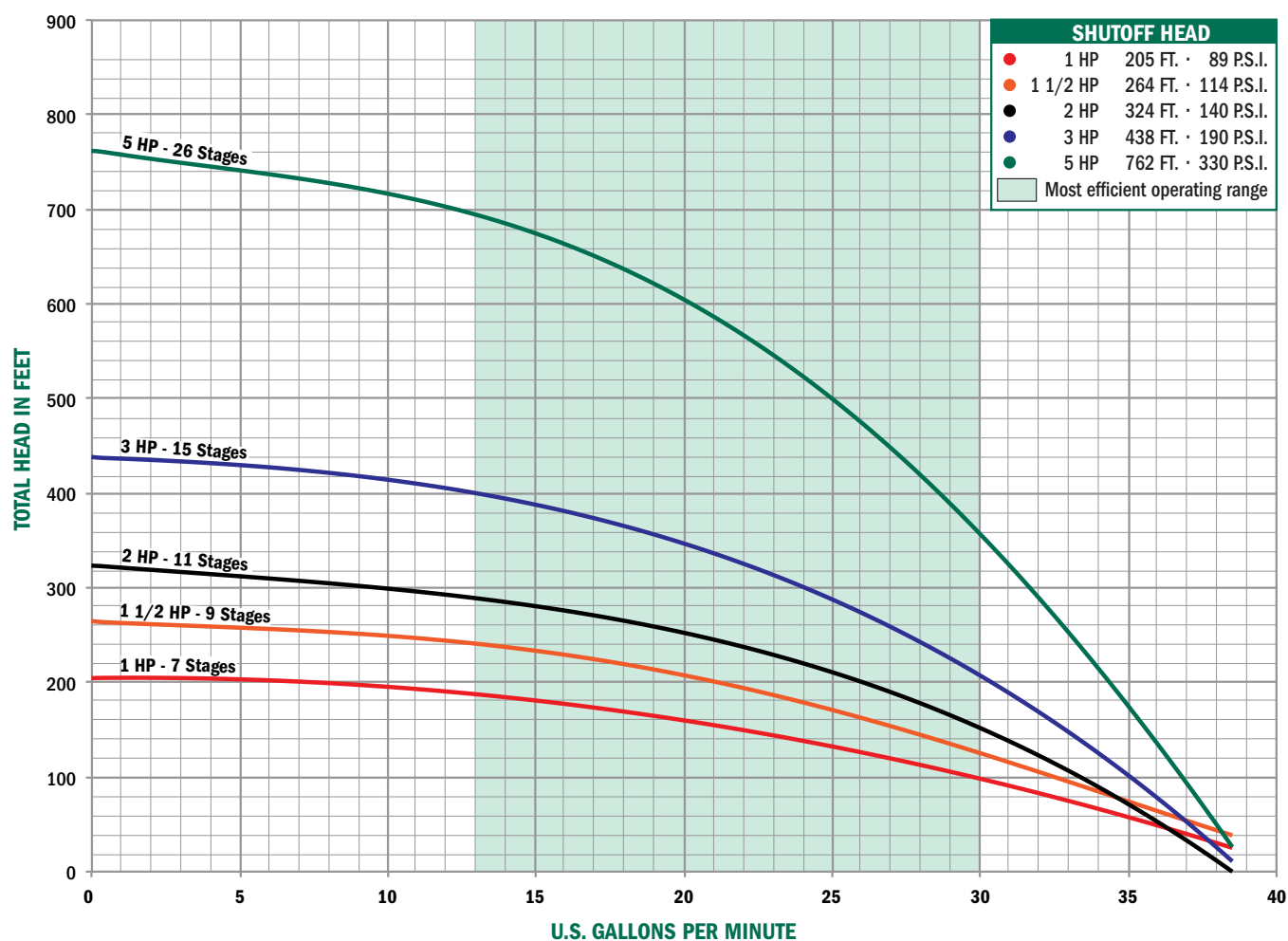
1 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
0	38.5	35.9	33.0	29.8	26.2	22.0	16.6	7.7	
30	30.5	27.0	23.0	18.0	10.5				
50	23.7	18.8	12.0						

1 1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'
0	39.9	37.4	34.9	32.5	30.0	27.4	24.5	21.2	16.9	9.7	
30	33.1	30.6	28.0	25.2	22.0	18.0	11.9				
50	28.4	25.7	22.5	18.7	13.1						
60	25.9	22.8	19.0	13.7							

2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0	37.4	36.1	34.8	33.4	31.8	30.1	28.2	26.1	23.5	20.4	16.2	9.7	
30	33.7	32.2	30.5	28.7	26.6	24.1	21.1	17.3	11.5	1.9			
50	30.8	29.0	26.9	24.5	21.6	17.9	12.6	3.6					
60	29.1	27.1	24.7	21.9	18.3	13.1	4.4						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

M Series - 25 GPM



3 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
	0	38.0	37.1	36.1	35.1	34.0	32.9	31.7	30.4	29.0	27.5	25.9	24.1	22.0	19.7	16.8	13.0	6.9
	30	35.3	34.2	33.1	31.9	30.7	29.3	27.9	26.3	24.5	22.5	20.0	17.5	14.0	8.7			
	50	33.3	32.1	30.9	29.5	28.1	26.5	24.8	22.8	20.6	18.0	14.6	9.7					
	60	32.2	31.0	29.7	28.2	26.7	24.9	23.0	20.8	18.2	14.9	10.2						

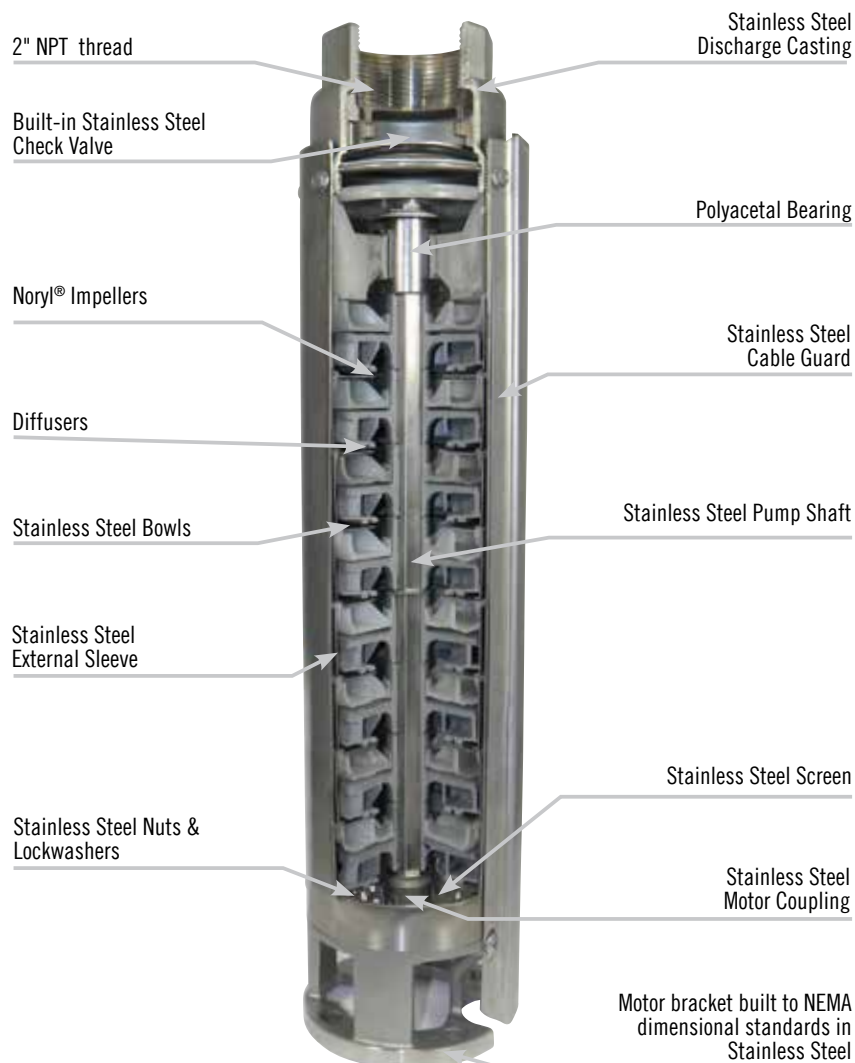
5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'
	0	38.0	36.8	35.6	34.4	33.1	31.7	30.2	28.6	26.9	25.0	22.8	20.2	17.0	12.3
	30	36.4	35.1	33.9	32.5	31.1	29.6	28.0	26.2	24.2	21.9	19.1	15.4	9.5	
	50	35.2	34.0	32.6	31.2	29.7	28.1	26.3	24.3	22.1	19.3	15.8	10.1		
	60	34.7	33.4	32.0	30.5	29.0	27.3	25.4	23.3	20.9	17.8	13.6			

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

24000 Series High Flow

A.Y. McDonald offers a full line of 4" submersibles ranging from 1 through 10 horsepower, with flow rates ranging from 35 through 80 GPM. Our 24000 high flow submersibles offer peak capacity performance in 35, 40, 55, 60, and 80 GPM models.

- Powered by NEMA approved A.Y. McDonald stainless steel motors
- Delivery: up to 124 GPM at 3450 rpm
- Head: up to 1300' at 3450 rpm
- The charts on the following page will assist you in choosing the pump that meets your needs.



How to Order 4" Submersible Pumps

Order by Model Number - Example: 24200R3

24

Pump Model
Stainless Steel

200

Horsepower

100 - 1 HP
150 - 1 1/2 HP
200 - 2 HP
300 - 3 HP
500 - 5 HP
750 - 7 1/2 HP
1000 - 10 HP

R

Series

R Series - 35 GPM
G Series - 40 GPM
S Series - 55 GPM
Q Series - 60 GPM
T Series - 80 GPM

3

Wires

Two wire or
Three wire

Other

Leave blank for 230V
60 HZ, Single Phase (Standard)
A - 115V Single Phase
**Other Options -
Contact Factory**
Z - 230V Three Phase
Y - 460V Three Phase

Controls

Leave blank for
Control (Standard)
LB - Less box
(Single Phase Option)
LS - Less starter
(Three Phase Option)

Model 24200R3 is a 2 HP, three wire, 230 volt, single phase stainless steel 4" high flow submersible pump, designed to pump in the 35 GPM range.

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.**

Locating the code number on the pump



A.Y. McDonald Mfg. Co.
aymcdonald.com

MODEL: 24150Q **HP:** 1 1/2
GPM: 60
S/N: T1107010010-0065
DATE CODE: D C 12C
MADE IN TAIWAN

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

- Pump Model
- Date of manufacture
- Motor HP
- Pump Series

MATERIALS OF CONSTRUCTION

Discharge Head	Stainless Steel 304, discharge 2" NPT from 35 GPM to 80 GPM series
Motor Adapter	Stainless Steel 304, NEMA standard
Check Valve	Stainless Steel 304
External Sleeve	Stainless Steel 304 polished
Impellers	Noryl
Diffusers	Polycarbonate
Bearing	Polyacetal
Shaft Coupling	Stainless Steel 304
Strainer	Stainless Steel 304
Shaft	Stainless Steel 304
Cable Guard	Stainless Steel 304

R Series - 35 GPM

All R Series Stainless Steel Submersible Pumps are designed to pump within the 35 GPM range. Sizes are available from 1 to 10 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

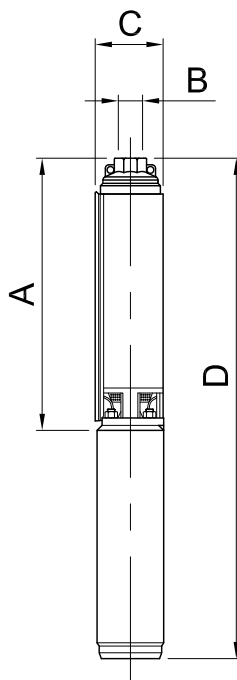
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24100R2	1	6	230	14.1"	2"	3.9"	29.1"	38
24150R2	1 1/2	8	230	16.6"	2"	3.9"	32.5"	40

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24100R3	1	6	230	14.1"	2"	3.9"	29.1"	38
24150R3	1 1/2	8	230	16.6"	2"	3.9"	32.5"	48
24200R3	2	10	230	19.0"	2"	3.9"	36.3"	52
24300R3	3	14	230	23.9"	2"	3.9"	43.4"	75
24500R3	5	22	230	35.2"	2"	3.9"	62.0"	103

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150R3Z	1 1/2	6	230	16.6"	2"	3.9"	31.5"	42
24150R3Y	1 1/2	6	460	16.6"	2"	3.9"	31.5"	37
24200R3Z	2	8	230	19.0"	2"	3.9"	35.0"	62
24200R3Y	2	8	460	19.0"	2"	3.9"	35.0"	48
24300R3Z	3	14	230	23.9"	2"	3.9"	41.2"	60
24300R3Y	3	14	460	23.9"	2"	3.9"	41.2"	54
24500R3Z	5	22	230	35.2"	2"	3.9"	62.0"	79
24500R3Y	5	22	460	35.2"	2"	3.9"	62.0"	74
24750R3Z	7 1/2	34	230	49.5"	2"	3.9"	76.4"	98
24750R3Y	7 1/2	34	460	49.5"	2"	3.9"	76.4"	97
241000R3Y	10	43	460	51.9"	2"	3.9"	82.7"	159



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24100R	1	8
24150R	1 1/2	9
24200R	2	11
24300R	3	13
24500R	5	18
24750R	7 1/2	26
241000R	10	31

Output - in Gallons Per Minute (Depth to Water)

1 HP	PSI	20'	40'	60'	80'	100'	120'	140'
	0			43	39	34	27.5	17.5
	30	38	32	24	15	19		
	50	24	14					

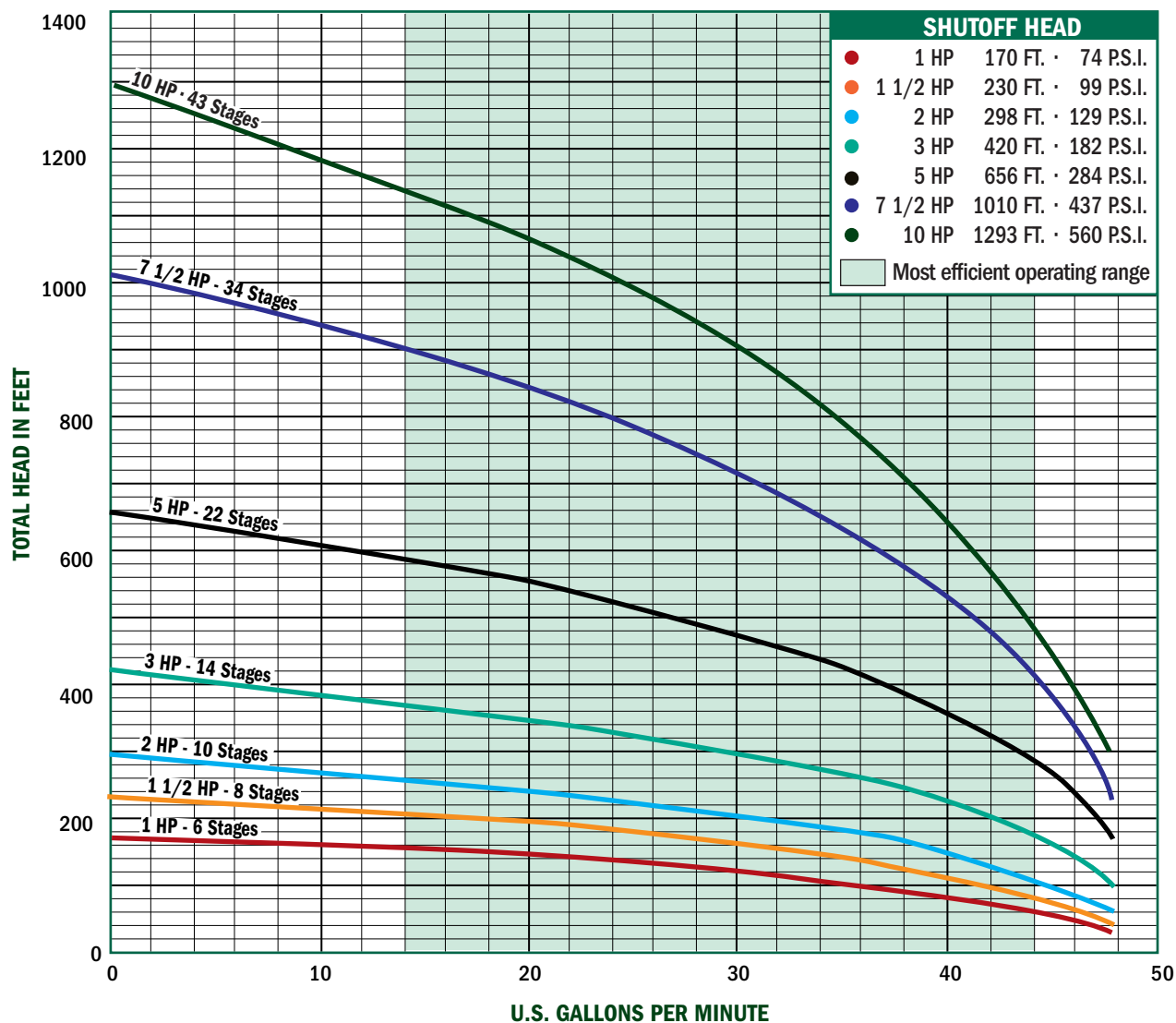
1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'
	0				44	42	38	34	30	24	16
	30		40	37	28	25	22	10			
	50	37	28	25	20	8					

2 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'
	0				44.3	42.3	41	39	35	30	24	18	12
	30		42	41	39	35	30	21	16	9			
	50	41	39	35	30	21	16	8					

3 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'
	0						44.5	43.5	42	40	38	35.8	32.2	28	20	10
	30			44	42.5	41	40	38	35	32	26	24	20	14		
	50	42.5	41	40.5	39	36	34	31	27	22	18	13				

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

R Series - 35 GPM



Submersible Pumps

5 HP	PSI	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
	0			45	43	40	36.5	32	26.8	20	11.8
	30		44.5	42	39	32	30	24	16.8		
	50	44.5	42.5	39.8	35.8	29	25				

7 1/2 HP	PSI	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'
	0					41	39	36.5	34	31	27	23.5	19	12
	30			41	40	38	35	32.3	29	25	22	17	12	
	50	43	42	40	37.8	5	31.3	29	26	21	16	12		

10 HP	PSI	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'	1050'	1100'	1150'	1200'
	0				43	41	40	38	36	34	31.5	28.5	26	22.3	18.2	14.2	10
	30		43.2	41.2	40.3	38.3	37	35	33	30	27.3	24	21	17	13		
	50	43.5	42.2	40.5	39.5	37	35.8	33	31	28	25	21	18				

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

G Series - 40 GPM

All G Series Stainless Steel Submersible Pumps are designed to pump within the 40 GPM range. Sizes are available from 1 1/2 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

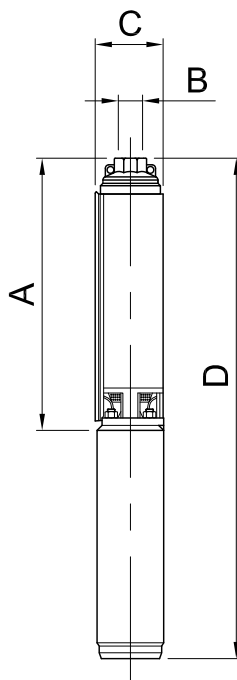
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G2	1 1/2	5	230	12.8"	2"	3.9"	28.7"	37

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G3	1 1/2	5	230	12.8"	2"	3.9"	28.7"	48
24200G3	2	6	230	14.0"	2"	3.9"	31.3"	51
24300G3	3	8	230	16.5"	2"	3.9"	35.9"	73
24500G3	5	14	230	23.8"	2"	3.9"	50.7"	99

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G3Z	1 1/2	5	230	12.8"	2"	3.9"	27.8"	47
24150G3Y	1 1/2	5	460	12.8"	2"	3.9"	27.8"	40
24200G3Z	2	6	230	14.0"	2"	3.9"	30.0"	47
24200G3Y	2	6	460	14.0"	2"	3.9"	30.0"	46
24300G3Z	3	8	230	16.5"	2"	3.9"	33.8"	60
24300G3Y	3	8	460	16.5"	2"	3.9"	33.8"	51
24500G3Z	5	14	230	23.8"	2"	3.9"	50.7"	75
24500G3Y	5	14	460	23.8"	2"	3.9"	50.7"	71
24750G3Z	7 1/2	21	230	33.8"	2"	3.9"	60.7"	93
24750G3Y	7 1/2	21	460	33.8"	2"	3.9"	60.7"	93



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24150G	1 1/2	7
24200G	2	8
24300G	3	9
24500G	5	13
24750G	7 1/2	18

Output - in Gallons Per Minute (Depth to Water)

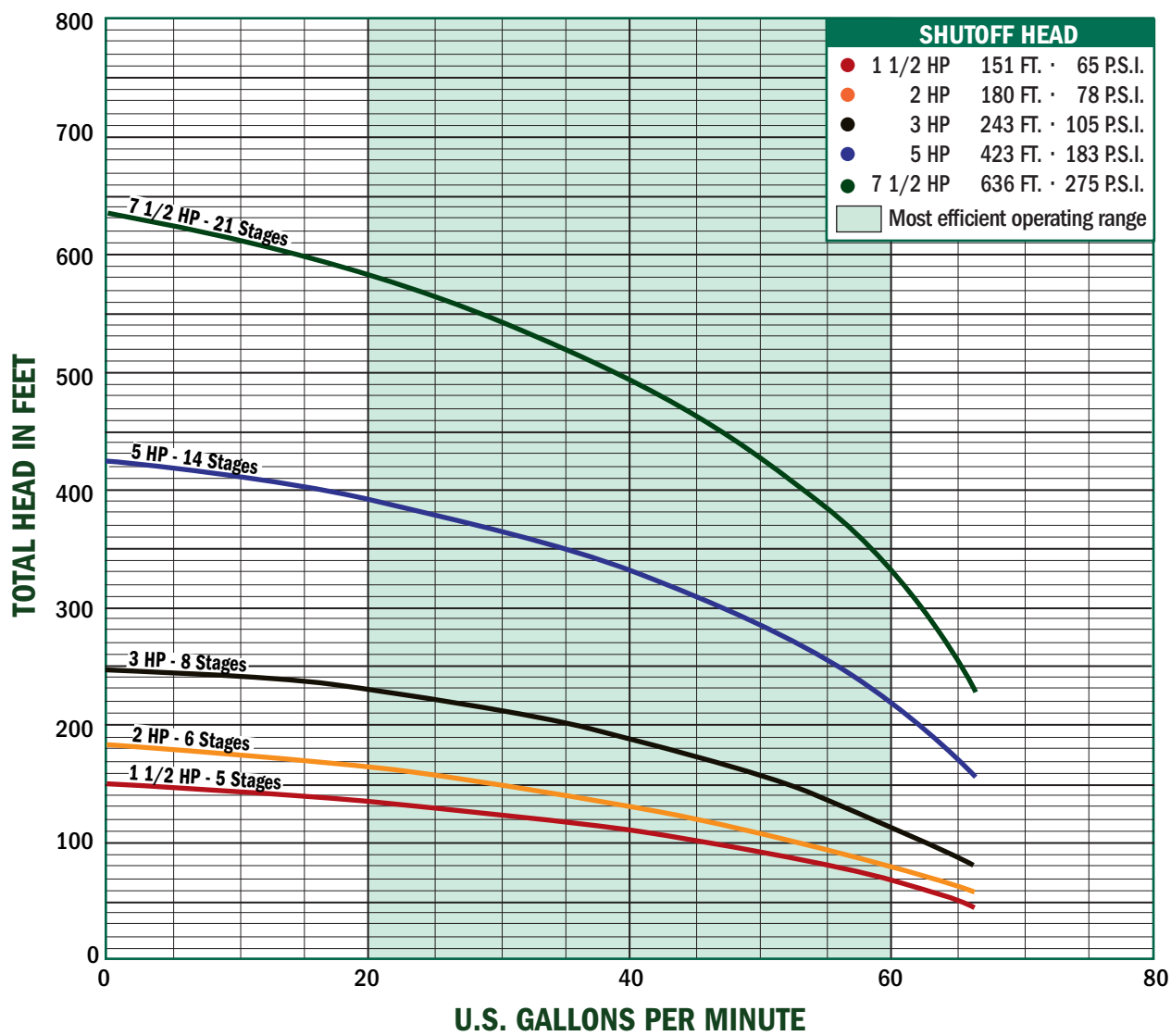
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'
	0				65	63	57	54	50	45	32	15
	30			40	31	22	12					
	50	17	12									

2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'
	0					66	63	58	56	53	43	34	22
	30	55	52.5	47.5	44	38	34	28	22	12			
	50	37.5	32	27	17.5	12							

3 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'	200'	240'
	0							66	64	62.5	57	53	43	42	35	10
	30	66	62.5	60	58	57	55	53	43	42	38	31	20	5		
	50	55	52.5	50	47.5	44	41	38	33	27	20					

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

G Series - 40 GPM



5 HP	PSI	100'	120'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'	400'
	0					63	58	56	53	50	46	42	37	32	23	16
	30			57	56	52	48	44	40	34	27	18				
	50	60	57	51	47	43	38	33	26	22						

7 1/2 HP	PSI	220'	240'	260'	280'	300'	320'	340'	360'	380'	400'	420'	440'	460'	500'	540'
	0					63	61	58	57	55	53	51	48	45	38	30
	30			59	58	57	53	52	48	46	43	40	37	32	22	
	50	61	57	56	53	52	48	44	42	38	35	31	23			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

S Series - 55 GPM

All S Series Stainless Steel Submersible Pumps are designed to pump within the 55 GPM range. Sizes are available from 1 1/2 to 10 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

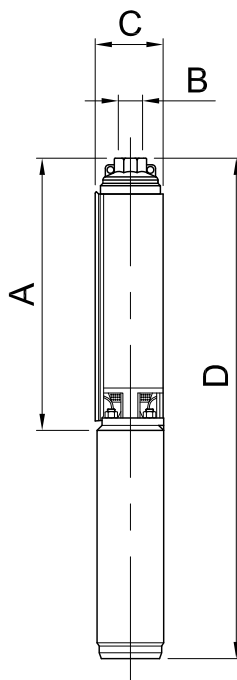
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150S2	1 1/2	5	230	17.0"	2"	3.9"	33.0"	40

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150S3	1 1/2	5	230	17.0"	2"	3.9"	33.0"	44
24200S3	2	7	230	21.1"	2"	3.9"	38.5"	48
24300S3	3	9	230	25.2"	2"	3.9"	44.7"	60
24500S3	5	15	230	37.5"	2"	3.9"	64.4"	95

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150S3Z	1 1/2	5	230	17.0"	2"	3.9"	32.0"	38
24150S3Y	1 1/2	5	460	17.0"	2"	3.9"	32.0"	38
24200S3Z	2	7	230	21.1"	2"	3.9"	37.1"	44
24200S3Y	2	7	460	21.1"	2"	3.9"	37.1"	44
24300S3Z	3	9	230	25.2"	2"	3.9"	42.6"	51
24300S3Y	3	9	460	25.2"	2"	3.9"	42.6"	51
24500S3Z	5	15	230	37.5"	2"	3.9"	64.4"	74
24500S3Y	5	15	460	37.5"	2"	3.9"	64.4"	73
24750S3Z	7 1/2	22	230	53.0"	2"	3.9"	79.8"	97
24750S3Y	7 1/2	22	460	53.0"	2"	3.9"	79.8"	95
24100S3Y	10	29	460	67.2"	2"	3.9"	98.1"	106



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24150S	1 1/2	10
24200S	2	12
24300S	3	14
24500S	5	20
24750S	7 1/2	28
241000S	10	35

Output - in Gallons Per Minute (Depth to Water)

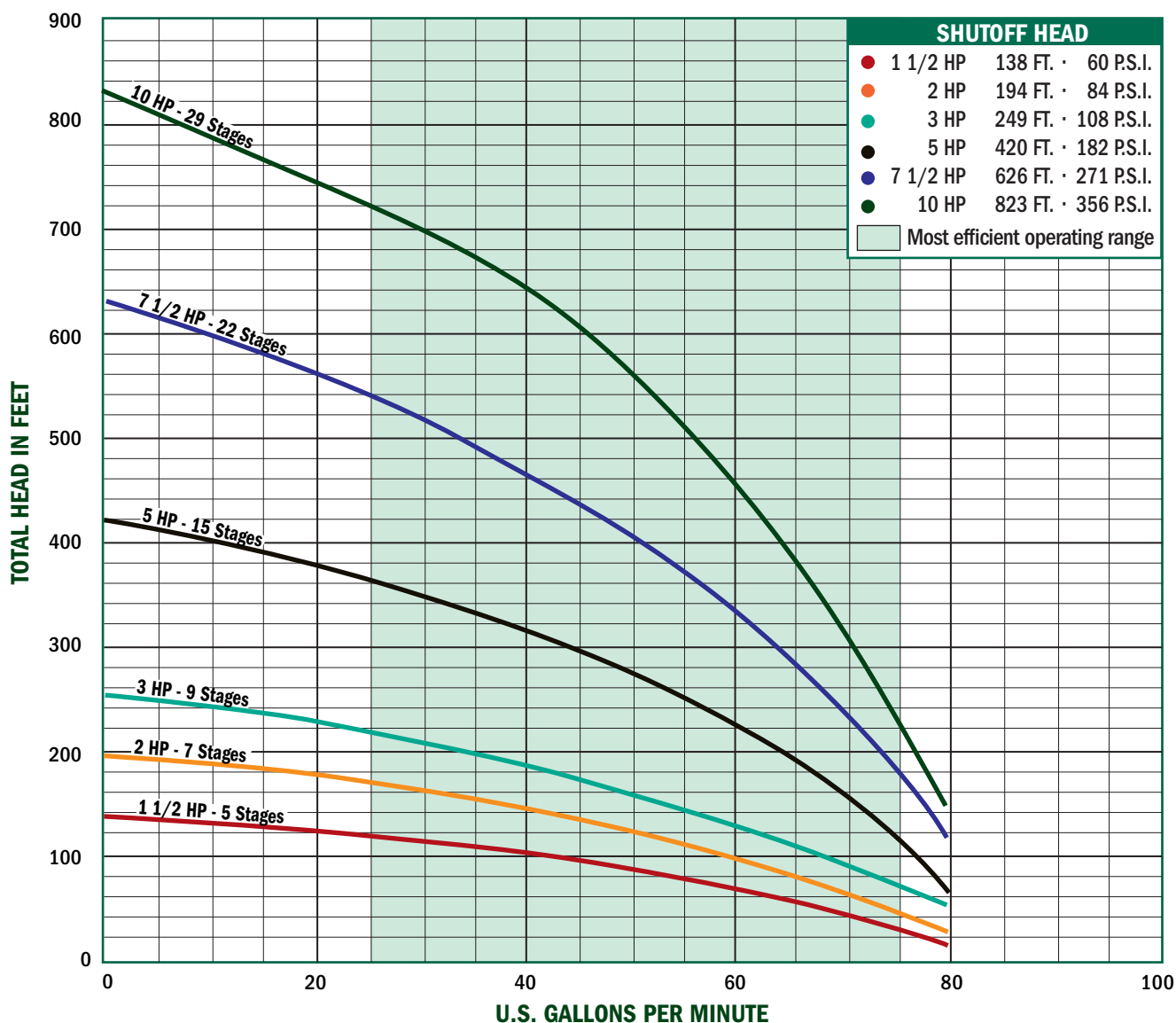
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'
	0			72.5	67.5	65	60	52.5	45	42.5	20
	30	47.5	42.5	32.5	20						
	50										

2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'
	0				77.5	75	72.5	68	67	62.5	60	52	42.5	32	19
	30		62	60	55	52	47	43	37	32	25				
	50	48	45	38	35	27	23								

3 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'	200'	240'
	0					79	76	73	70	68	62.5	57	50	42	34	24
	30			66	62.5	60	57	53	50	46	38	24	17			
	50	60	58	53	46	45	40	37	33	27	16					

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

S Series - 55 GPM



5 HP	PSI	40'	60'	80'	100'	120'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'
	0				77	75	70	67	65	61	58	53	49	44	38	33	26	18
	30		74	72	68	66	58	55	51	47	41	36	29	22				
	50	71	68	65	62	58	51	46	41	35	30	22						

7 1/2 HP	PSI	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'
	0					77	75	74	72	70	68	66	64	58	54	47.5	40	33	25
	30			74	72.5	71	69	67	65	63	60	57	55	47	42	35	27		
	50	74	72	71	68	67	65	62	60	57	55	52	48	42	35				

10 HP	PSI	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'
	0					78	77	76	75	74	73	72	69	67	63	59	55	52	47	41	35	30	20
	30				77	76	75	74	72	71	70	67	66	62	60	57	53	47	43	37	31	23	
	50	77	76	75	74	72	71	70	67	66	62	60	57	56	53	50	42	40	33				

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

Q Series - 60 GPM

All Q Series Stainless Steel Submersible Pumps are designed to pump within the 60 GPM range. Sizes are available from 1 1/2 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

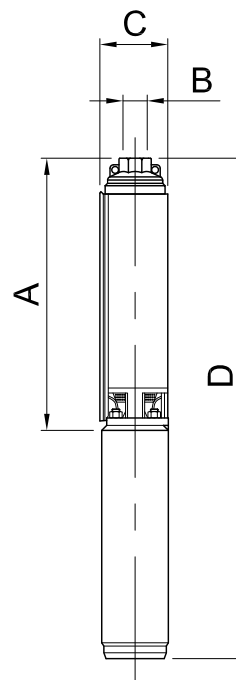
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q2	1 1/2	4	230	14.9"	2"	3.9"	30.8"	40

Three Wire Single Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q3	1 1/2	4	230	14.9"	2"	3.9"	30.8"	44
24200Q3	2	5	230	16.9"	2"	3.9"	34.3"	48
24300Q3	3	7	230	21.0"	2"	3.9"	40.5"	60
24500Q3	5	11	230	29.2"	2"	3.9"	56.1"	95

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q3Z	1 1/2	4	230	14.9"	2"	3.9"	29.8"	38
24150Q3Y	1 1/2	4	460	14.9"	2"	3.9"	29.8"	38
24200Q3Z	2	5	230	16.9"	2"	3.9"	32.9"	44
24200Q3Y	2	5	460	16.9"	2"	3.9"	32.9"	44
24300Q3Z	3	7	230	21.0"	2"	3.9"	38.3"	51
24300Q3Y	3	7	460	21.0"	2"	3.9"	38.3"	51
24500Q3Z	5	11	230	29.2"	2"	3.9"	56.1"	74
24500Q3Y	5	11	460	29.2"	2"	3.9"	56.1"	73
24750Q3Z	7 1/2	17	230	43.0"	2"	3.9"	69.9"	97
24750Q3Y	7 1/2	17	460	43.0"	2"	3.9"	69.9"	95



4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24150Q	1 1/2	9
24200Q	2	10
24300Q	3	12
24500Q	5	16
24750Q	7 1/2	23

Output - in Gallons Per Minute (Depth to Water)

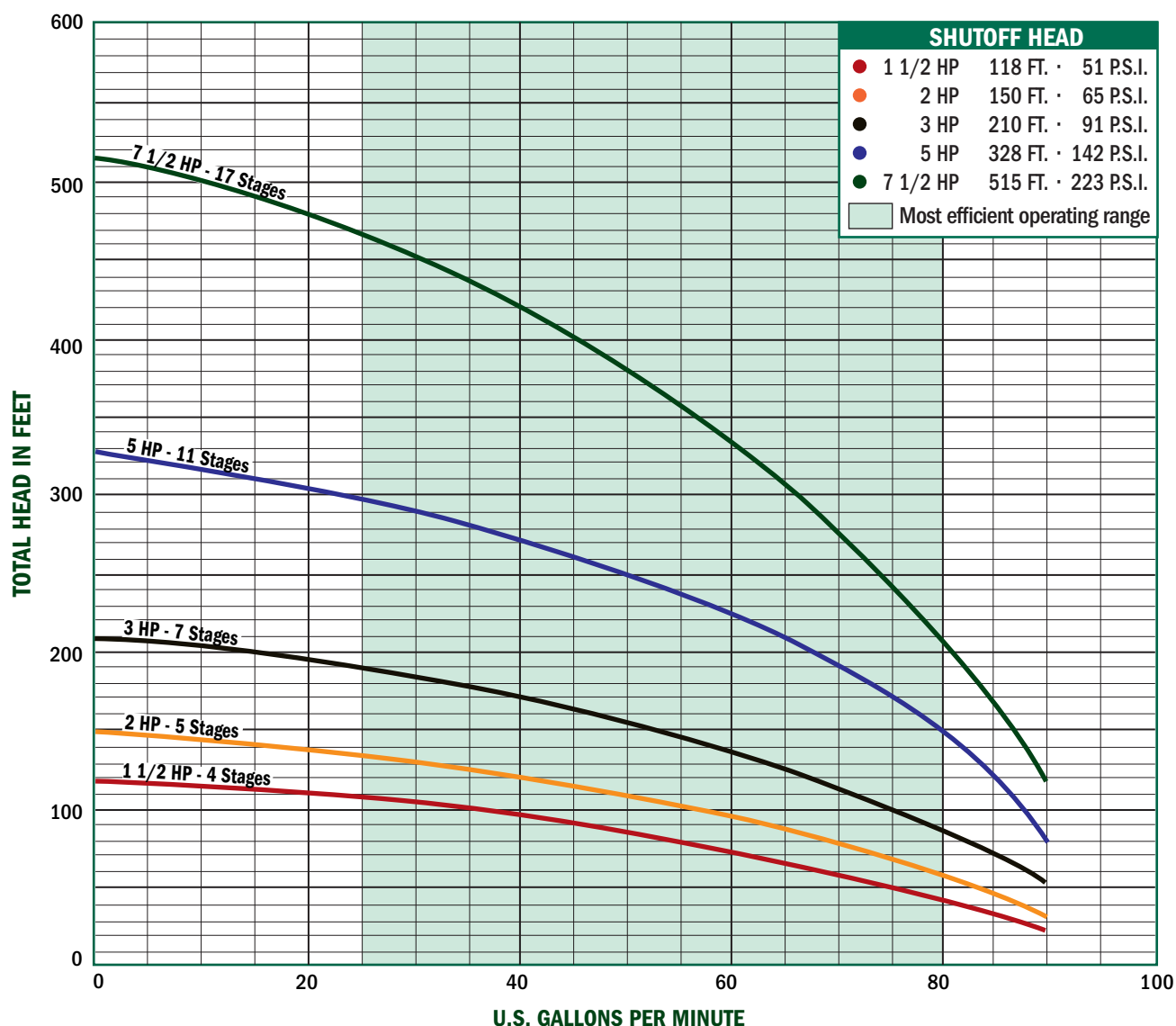
1 1/2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
	0			85	79	74	67	61	53	44	35
	30	53	44	35	18						
	50										

2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'
	0				84	82	78	73	67	62	55	39
	30		62	55	47.5	39	28	15				
	50	37	22									

3 HP	PSI	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'
	0					84	81	77	73	66	57	46	33
	30			66	62	57	52	46	40				
	50	55	48	43	37	30							

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

Q Series - 60 GPM



Submersible Pumps

5 HP	PSI	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'
	0					77	72.5	67	60	53	44	28.5
	30			69	66	62.5	50	40	28	16		
	50	69	62	55	47	38	26	15				

7 1/2 HP	PSI	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'
	0					80	78	75	72	69	66	62	50	39
	30			75	73	70.5	67.5	64	60	56	52.5	42		
	50	76	73	69	67	63	57	55	50	46				

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

T Series - 80 GPM

All T Series Stainless Steel Submersible Pumps are designed to pump within the 80 GPM range. Sizes are available from 3 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Three Wire Single Phase

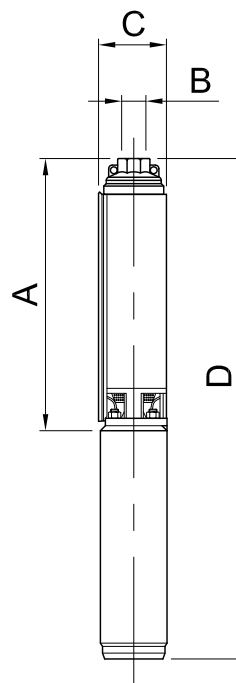
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24300T3	3	5	230	18.6"	2"	3.9"	38.1"	58
24500T3	5	9	230	29.3"	2"	3.9"	56.1"	92

Three Wire Three Phase

Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24300T3Z	3	5	230	18.6"	2"	3.9"	35.9"	49
24300T3Y	3	5	460	18.6"	2"	3.9"	35.9"	49
24500T3Z	5	9	230	29.3"	2"	3.9"	56.1"	71
24500T3Y	5	9	460	29.3"	2"	3.9"	56.1"	69
24750T3Z	7 1/2	14	230	42.6"	2"	3.9"	69.4"	93
24750T3Y	7 1/2	14	460	42.6"	2"	3.9"	69.4"	91

4" Stainless Steel Pump Ends

Model No.	HP	Wt.
24300T	3	10
24500T	5	16
24750T	7 1/2	22



Output - in Gallons Per Minute (Depth to Water)

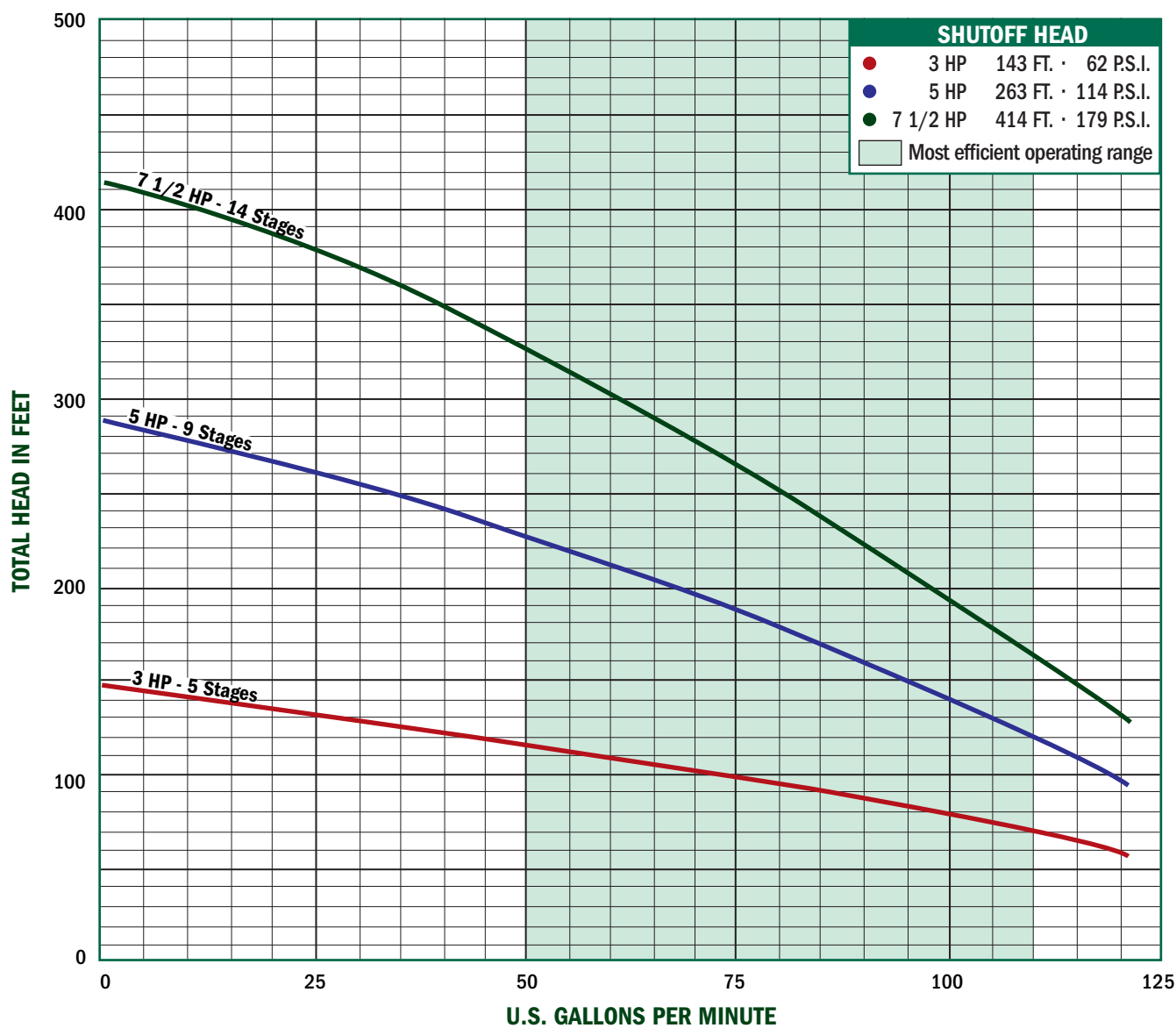
3 HP	PSI	60'	70'	80'	90'	100'	120'
	0			100	85	73	43
	30	100	58				
	50						

5 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'
	0					95	83	72	59	45	27
	30			76	65	51	35	20			
	50	75	62	50	32	15					

7 1/2 HP	PSI	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'
	0					96	90	83	75	68	60	52	43	34	25
	30			86	80	72.5	65	56	47	39	27				
	50	80	77	70	63	55	45	36	25						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

T Series - 80 GPM



26000 Series

4" Stainless Steel Pump End

A.Y. McDonald offers a full line of submersible pump ends ranging from 1/2 horsepower through 10 horsepower. Our submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 GPM.

- Stainless steel construction designed and built for years of trouble free operation
- Stainless steel discharge head with built-in check valve
- Max. ambient temperature (Liquid): 140°F (60°C)
- High quality shaft bearings
- Pumped Liquids: clean, non-corrosive and non-abrasive liquids
- Shaft is made of 431 stainless steel, all other metal parts are made of 304 stainless steel
- High-efficiency stainless steel impellers & diffusers
- Stainless Steel suction screen and strainer
- Specifications for mounting are according to NEMA standards
- Powered by A.Y. McDonald Motors



How to Order 4" Stainless Steel Pump

Order by Model Number - Example: 26050K3ALB

26
Pump Model

4" Submersible
Stainless Steel
Pumps are **Model 26**

050
Horsepower

050 - 1/2 HP
075 - 3/4 HP
100 - 1 HP
150 - 1 1/2 HP
200 - 2 HP
300 - 3 HP
500 - 5 HP
750 - 7 1/2 HP
1000 - 10 HP

K
Series

J Series - 5 GPM
K Series - 10 GPM
P Series - 18 GPM
M Series - 25 GPM
G Series - 40 GPM
H Series - 70 GPM

3
Wires

**Two wire or
Three wire**

A
Other

**Leave blank for 230V
60 HZ, Single Phase (Standard)**
A - 115V Single Phase

**Other Options -
Contact Factory**

Z - 230V Three Phase
Y - 460V Three Phase

LB
Controls

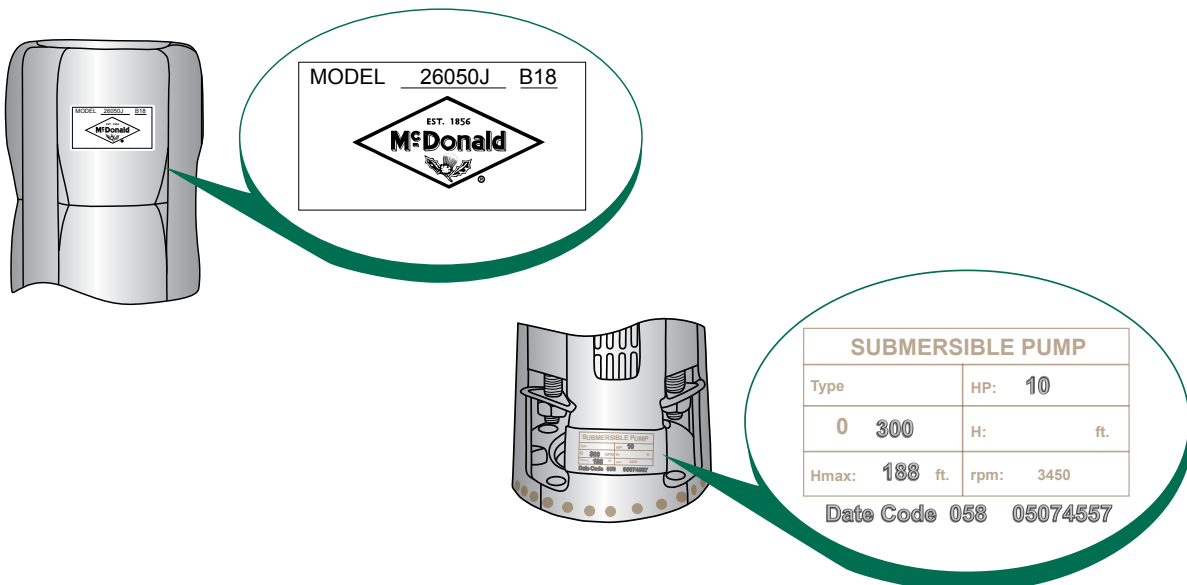
**Leave blank for
Control (Standard)**
LB - Less box
(Single Phase Option)
LS - Less starter
(Three Phase Option)

Model 26050K3ALB is a 1/2 HP, three wire, 115 volt, single phase all stainless steel 4" submersible pump, less control box designed to pump in the 10 GPM range.

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.**

How to Identify Pump Ends in the Field



J Series - 5 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All J Series Stainless Steel Pump Ends come with a 1 1/4" discharge and sizes range from 1/2 to 2 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050J2	1/2	13	16.8	9.5	26.3	3.82	8.4	18	26.4
26050J2A	1/2	13	16.8	9.5	26.3	3.82	8.4	18	26.4
26075J2	3/4	18	21	10.6	31.6	3.82	10.6	21	31.6
26100J2	1	22	24.3	11.7	36	3.82	12.1	24	36.1
26150J2	1 1/2	26	27.5	15.1	42.6	3.82	13.7	31	44.7

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050J3	1/2	13	16.8	9.5	26.3	3.82	8.4	19	27.4
26050J3A	1/2	13	16.8	9.5	26.3	3.82	8.4	19	27.4
26075J3	3/4	18	21	10.6	31.6	3.82	10.6	21	31.6
26100J3	1	22	24.3	11.7	36	3.82	12.1	24	36.1
26150J3	1 1/2	26	27.5	13.6	41.1	3.82	13.7	28	41.7
26200J3	2	31	31.7	15.1	46.8	3.82	15.9	33	48.9

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26050J	1/2	13	16.8	16.8	3.82	8.4
26075J	3/4	18	21	21	3.82	10.6
26100J	1	22	24.3	24.3	3.82	12.1
26150J	1 1/2	26	27.5	27.5	3.82	13.7
26200J	2	31	31.7	31.7	3.82	15.9

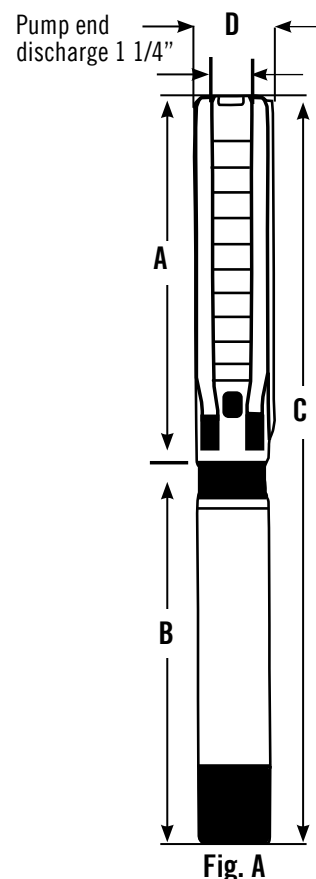


Fig. A

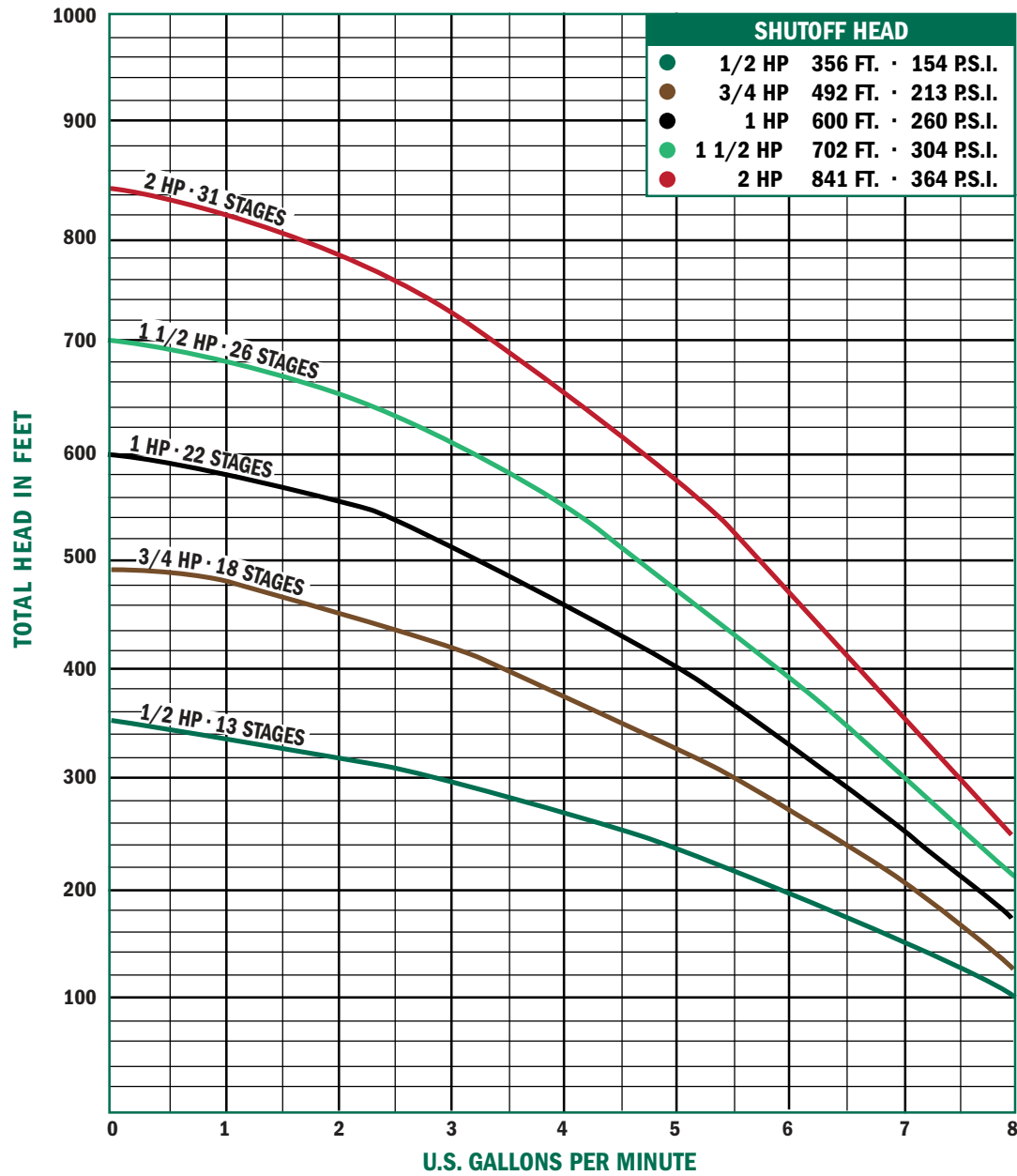
** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'		
	0							7.4	6.9	6.5	6.0	5.5	5.1	4.6	4.1	3.4		
	30				7.2	6.7	6.2	5.8	5.3	4.9	4.4	3.8	3.1	2.0				
	50	7.5	7.0	6.6	6.1	5.6	5.2	4.7	4.2	3.6	2.8	1.5						
3/4 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'
	0						7.9	7.6	7.3	7.0	6.6	6.3	5.9	5.6	4.9	4.2	3.3	1.8
	30			7.8	7.5	7.1	6.8	6.5	6.1	5.8	5.4	5.1	4.8	4.4	3.6	2.3		
	50	7.7	7.4	7.0	6.7	6.3	6.0	5.7	5.3	5.0	4.7	4.3	3.9	3.4	2.0			
1 HP	PSI	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	FR HA
	0						7.6	7.3	.1	6.8	6.5	6.0	5.4	4.9	4.3	3.6	2.6	
	30			7.5	7.2	6.9	6.7	6.4	6.1	5.8	5.6	5.0	4.5	3.8	2.9	1.5		
	50	7.4	7.1	6.9	6.6	6.3	6.0	5.7	5.5	5.2	4.9	4.4	3.7	2.7	1.2			

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

J Series - 5 GPM



Submersible Pumps

1½ HP	PSI	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'
	0					7.8	7.6	7.4	7.2	6.7	6.2	5.7	5.3	4.8	4.4	3.8	3.0	1.9
	30			7.5	7.3	7.1	6.8	6.6	6.3	5.9	5.4	5.0	4.5	4.0	3.3	2.3		
	50	7.4	7.2	7.0	6.7	6.5	6.3	6.0	5.8	5.3	4.9	4.4	3.9	3.1	2.1			

2 HP	PSI	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'	780'
	0						7.7	7.3	6.9	6.5	6.2	5.8	5.4	5.0	4.6	4.2	3.7	3.0	2.1
	30				7.4	7.2	7.0	6.7	6.3	5.9	5.5	5.1	4.7	4.3	3.8	3.2	2.4	1.2	
	50	7.5	7.4	7.2	7.0	6.8	6.6	6.2	5.8	5.4	5.0	4.7	4.2	3.7	3.1	2.2			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

K Series - 10 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All K Series Stainless Steel Pump Ends come with a 1 1/4" discharge and sizes range from 1/2 to 3 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050K2	1/2	9	13.5	9.5	23	3.82	6.9	8.4	15.3
26050K2A	1/2	9	13.5	9.5	23	3.82	6.9	8.4	15.3
26075K2	3/4	12	16	10.6	26.6	3.82	8	10.6	18.6
26100K2	1	15	18.5	11.7	30.2	3.82	9.3	12.1	21.4
26150K2	1 1/2	21	23.5	13.6	37.1	3.82	12.6	13.7	26.3

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050K3	1/2	9	13.5	9.5	23	3.82	6.9	19	25.9
26050K3A	1/2	9	13.5	9.5	23	3.82	6.9	19	25.9
26075K3	3/4	12	16	10.6	26.6	3.82	8	21	29
26100K3	1	15	18.5	11.7	30.2	3.82	9.3	24	33.3
26150K3	1 1/2	21	23.5	13.6	37.1	3.82	12.6	28	40.6
26200K3	2	27	28.4	15.1	43.5	3.82	15.9	30	45.9
26300K3	3	34	34.2	23.5	57.7	3.82	19	54	73

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26050K	1/2	9	13.5	13.5	3.82	6.9
26075K	3/4	12	16	16	3.82	8
26100K	1	15	18.5	18.5	3.82	9.3
26150K	1 1/2	21	23.5	23.5	3.82	12.6
26200K	2	27	28.4	28.4	3.82	15
26300K	3	34	34.2	34.2	3.82	19

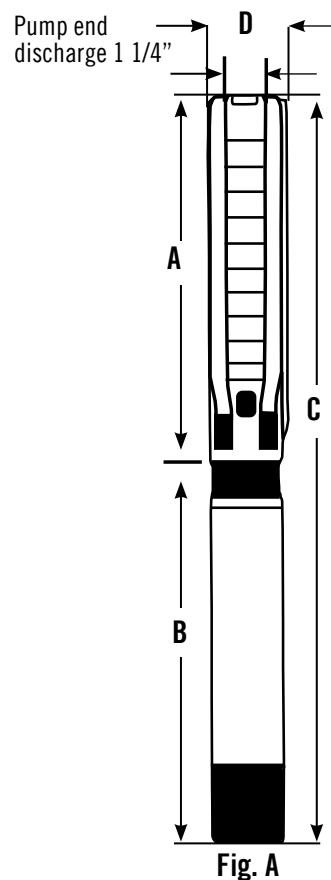


Fig. A

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

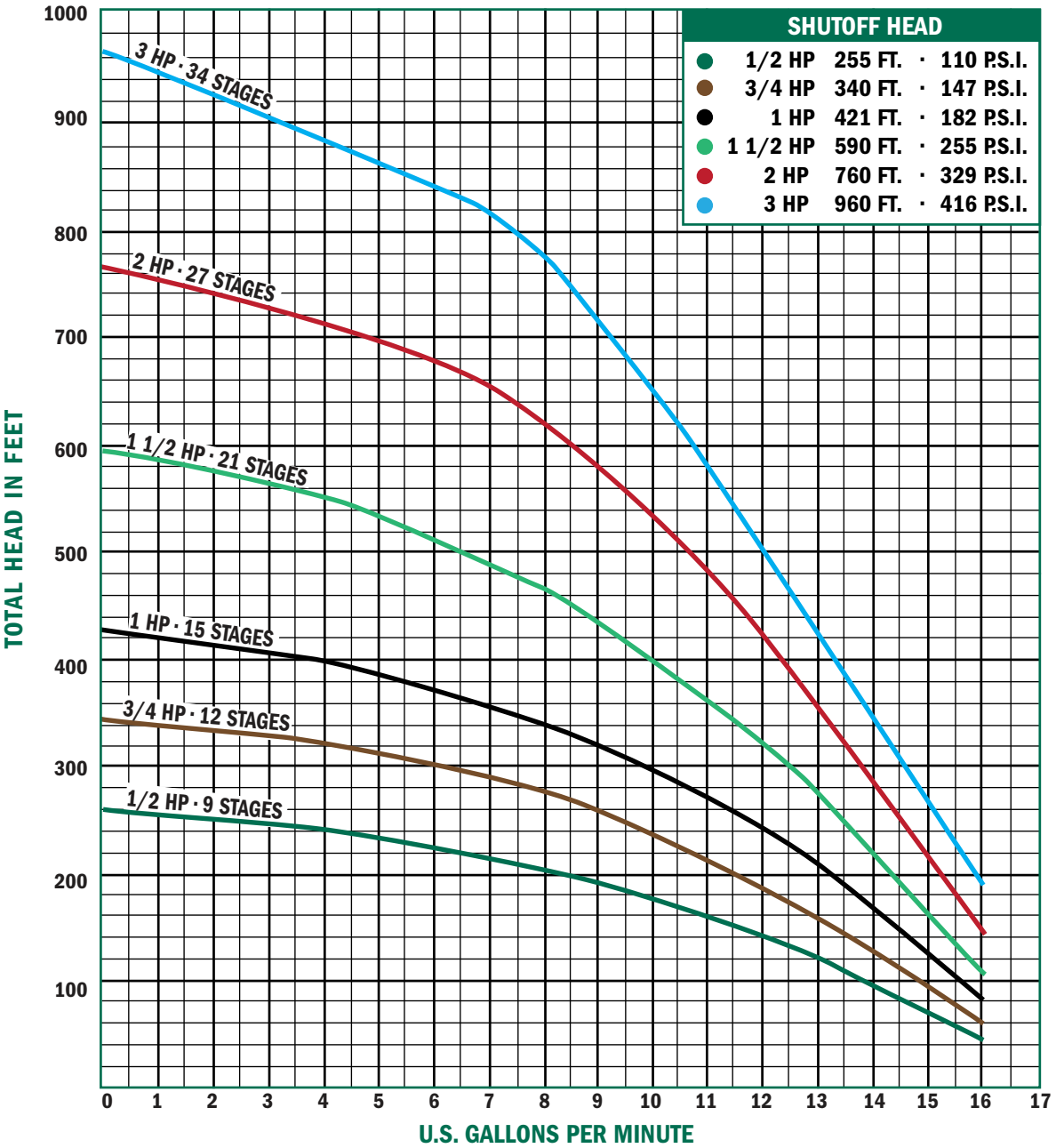
1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'
0			16.2	15.5	14.8	14.0	13.1	12.1	11.0	9.8	8.3	6.3	3.1
30		14.4	13.6	12.6	11.6	10.4	9.1	7.5	5.0				
50		12.3	11.2	10.1	8.7	6.8	4.0						

3/4 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'
0				16.0	15.5	15.0	14.4	13.8	13.1	12.3	11.5	10.7	9.8	8.7	7.4	5.6
30		15.3	14.7	14.1	13.4	12.7	12.0	11.1	10.3	9.3	8.1	6.6	4.6			
50		13.9	13.2	12.5	11.7	10.9	10.0	9.0	7.7	6.0	3.8					

1 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'
0					16.0	15.8	15.5	15.0	14.5	13.9	13.2	12.5	11.8	11.2	10.5	9.8		5.2
30		15.9	15.6	15.3	14.8	14.2	13.6	12.9	12.2	11.5	10.8	10.1	9.4	8.5	7.4	6.1		
50		15.1	14.6	14.0	13.4	12.7	12.0	11.3	10.6	9.9	9.1	8.2	7.1	5.6	3.6			

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

K Series - 10 GPM



Submersible Pumps

1½ HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'
	0						15.8	15.5	15.2	14.9	14.6	14.2	13.9	13.5	13.1	12.6	11.8	10.8	9.8	8.5	6.9	4.6
	30		16.0	15.7	15.4	15.1	14.8	14.4	14.1	13.7	13.3	12.9	12.4	12.0	11.5	11.1	10.1	8.9	7.4	5.3	2.3	
	50	15.6	15.3	15.0	14.7	14.3	13.9	13.6	13.2	12.7												

2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'
	0					16.4	16.2	16.0	15.8	15.5	15.3	15.1	14.8	14.6	14.3	14.0	13.4	12.7	12.1	11.3	10.6	9.8	8.8	7.7	6.3	4.3
	30				15.9	15.7	15.2	15.0	14.7	14.4	14.1	13.8	13.5	13.2	12.9	12.2	11.5	10.8	10.0	9.1	8.0	6.7	4.9	2.5		
	50	16.0	15.8	15.6	15.4	15.1	14.9	14.6	14.3	14.1	13.8	13.4	13.1	12.8	12.5	12.1	11.4	10.7	9.9	9.0	7.8	6.4	4.6	2.1		

3 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'	780'	820'	860'	900'
	0							15.9	15.8	15.6	15.4	15.2	15.0	14.8	14.4	14.0	13.5	13.0	12.4	11.9	11.3	10.7	10.1	9.4	8.6	7.7	6.6	5.2	3.5
	30			16.0	15.9	15.7	15.5	15.3	15.1	14.9	14.7	14.5	14.3	14.1	13.6	13.1	12.6	12.0	11.5	10.9	10.3	9.6	8.9	8.0	6.9	5.6	4.0		
	50	16.0	15.8	15.6	15.5	15.3	15.1	14.9	14.7	14.5	14.2	14.0	13.8	13.5	13.0	12.5	12.0	11.4	10.8	10.2	9.5	8.7	7.8	6.7	5.4	3.7			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 18 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All P Series Stainless Steel Pump Ends come with a 1 1/4" discharge and sizes range from 1/2 to 5 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050P2	1/2	5	10.3	9.5	19.8	3.82	5.1	19	24.1
26050P2A	1/2	5	10.3	9.5	19.8	3.82	5.1	19	24.1
26075P2	3/4	7	11.7	10.6	22.3	3.82	6	21	27
26100P2	1	9	13.4	11.7	25.1	3.82	6.9	24	30.9
26150P2	1 1/2	13	16.9	13.6	30.5	3.82	8.6	28	36.6

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050P3	1/2	5	10.3	9.5	19.8	3.82	5.1	19	24.1
26050P3A	1/2	5	10.3	9.5	19.8	3.82	5.1	19	24.1
26075P3	3/4	7	11.7	10.6	22.3	3.82	6	21	27
26100P3	1	9	13.4	11.7	25.1	3.82	6.9	24	30.9
26150P3	1 1/2	13	16.9	13.6	30.5	3.82	8.6	28	36.6
26200P3	2	17	20.2	15.1	35.3	3.82	10.4	30	40.4
26300P3	3	23	25.1	23.5	48.6	3.82	13	54	67
26500P3	5	36	35.9	29.5	65.4	3.82	18.7	65	83.7

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26050P	1/2	5	10.3	10.3	3.82	5.1
26075P	3/4	7	11.7	11.7	3.82	6
26100P	1	9	13.4	13.4	3.82	6.9
26150P	1 1/2	13	16.9	16.9	3.82	8.6
26200P	2	17	20.2	20.2	3.82	10.4
26300P	3	23	25.1	25.1	3.82	13
26500P	5	36	35.9	35.9	3.82	18.7

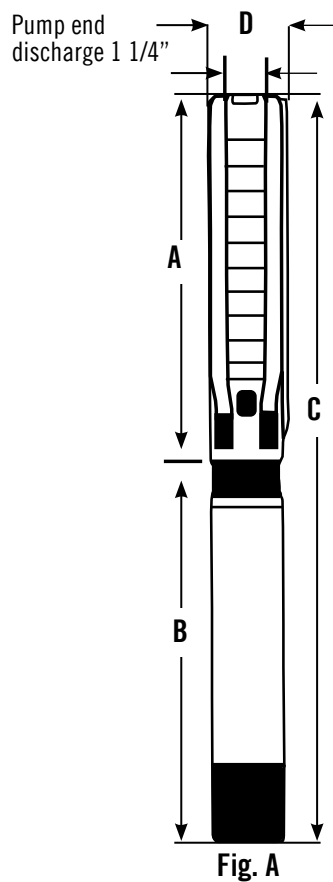


Fig. A

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'
	0		24.0	22.1	20.0	17.0	13.0	7.0
	30	18.8	15.0	10.0	2.5			
	50	8.0	1.0					

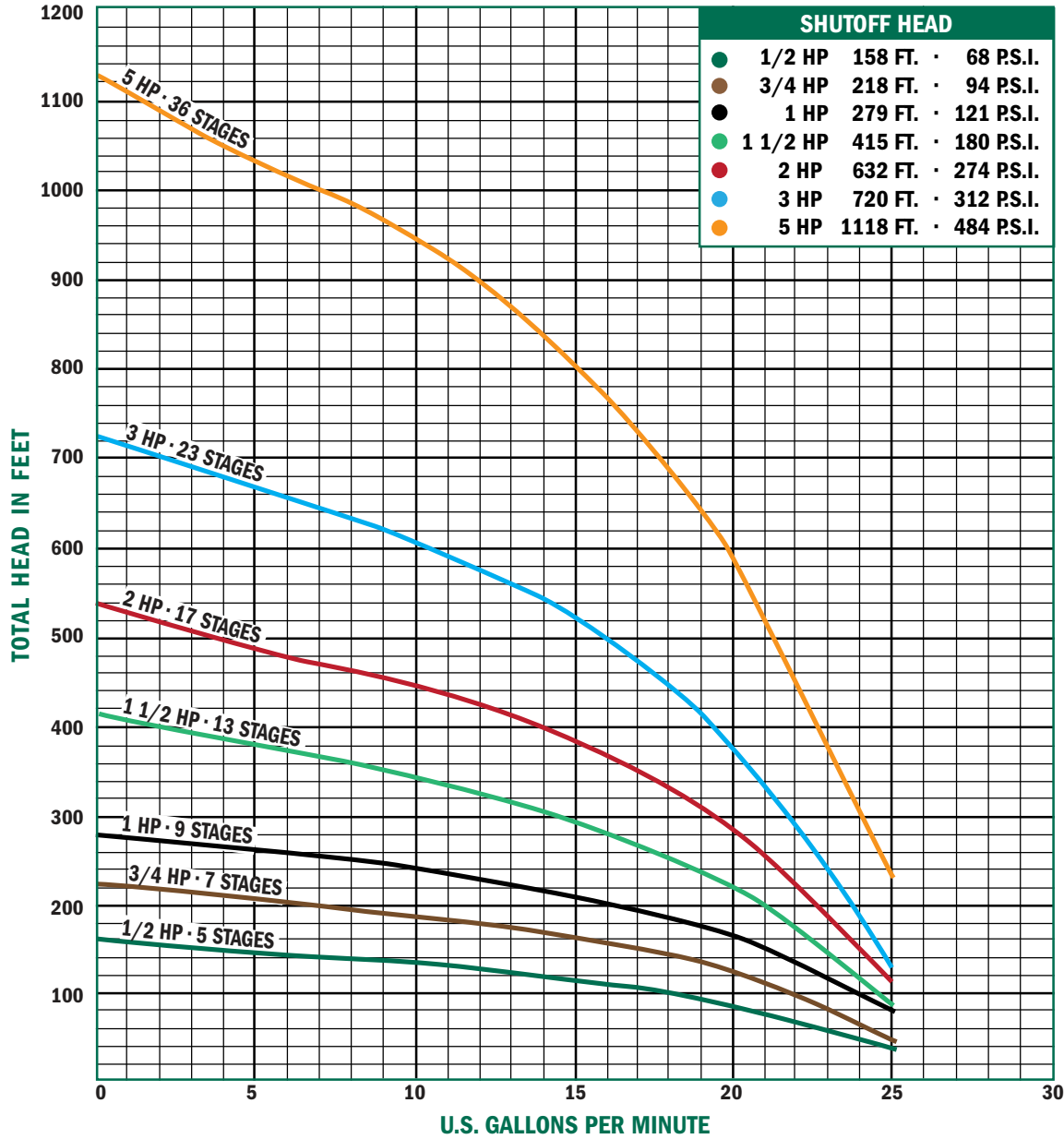
3/4 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'
	0		25.4	23.6	22.7	21.2	19.3	17.1	14.5	10.5
	30	22.1	20.4	18.3	16.0	12.9	8.1			
	50	17.6	15.1	11.6	6.3					

1 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'
	0			27.7	24.4	23.4	22.6	21.3	19.6	17.7	15.6	12.8	9.1
	30	23.8	23.1	22.1	20.6	18.8	16.8	14.4	11.2	7.0			
	50	21.7	20.0	18.2	16.1	13.5	10.0						

1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'
	0			27.7	24.9	23.7	23.2	22.8	22.3	21.5	20.5	19.4	18.3	17.1	15.8	14.2	9.8
	30	24.2	23.5	23.1	22.6	21.9	21.0	20.0	18.9	17.8	16.5	15.1	13.4	11.2	8.5		
	50	22.9	22.4	21.7	20.7	19.7	18.6	17.4	16.1	14.6	12.7	10.4	7.5				

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

P Series - 18 GPM



Submersible Pumps

2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'
	0				27.4	25.2	24.1	23.6	23.2	22.9	22.5	22.0	21.3	20.6	19.8	18.9	17.1	15.0	12.1	8.1
	30	26.2	24.6	23.8	23.4	23.1	22.7	22.3	21.7	21.0	20.2	19.4	18.5	17.6	16.7	15.6	13.0	9.3		
	50	23.6	23.3	23.0	22.6	22.1	21.5	20.7	19.9	19.1	18.2	17.3	16.4	15.3	14.0	12.5	8.6			

3 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'
	0					28.3	26.2	24.9	24.2	23.7	23.4	23.2	23.0	22.7	22.3	21.9	20.9	19.7	18.5	17.1	15.6	13.8	11.4	8.3
	30		27.2	25.6	24.5	23.9	23.6	23.3	23.1	22.8	22.5	22.2	21.7	21.2	20.6	20.0	18.8	17.5	16.0	14.3	12.1	9.2		
	50	25.2	24.3	23.8	23.5	23.2	23.0	22.8	22.4	22.0	21.6	21.0	20.5	19.9	19.2	18.6	17.3	15.8	14.0	11.7	8.7			

5 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'	780'	820'	860'	900'	940'	980'
	0							28.1	26.7	25.7	24.9	24.4	24.0	23.7	23.5	23.2	22.9	22.6	22.1	21.5	20.8	20.0	19.2	18.4	17.6	16.7	15.7	14.6	13.2	11.7	9.9	7.8
	30				27.4	26.2	25.3	24.6	24.2	23.9	23.6	23.4	23.3	23.2	23.0	22.7	22.2	21.6	21.0	20.2	19.4	18.6	17.8	16.9	16.0	14.9	13.6	12.1	10.4	8.4	6.1	
	50	28.4	27.0	25.9	25.1	24.5	24.1	23.8	23.6	23.4	23.3	23.1	23.0	22.8	22.6	22.1	21.5	20.8	20.1	19.3	18.5	17.6	16.8	15.8	14.7	13.4	11.9	10.1	8.0			

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

M Series - 25 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All M Series Stainless Steel Pump Ends come with a 1 1/2" discharge and sizes range from 1/2 to 7 1/2 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050M2	1/2	4	9.4	9.5	18.9	3.82	5.1	19	24.1
26050M2A	1/2	4	9.4	9.5	18.9	3.82	5.1	19	24.1
26075M2	3/4	5	10.3	10.6	20.9	3.82	5.3	21	26.3
26100M2	1	7	11.9	11.7	23.6	3.82	5.9	24	29.9
26150M2	1 1/2	9	13.5	13.6	27.1	3.82	6.8	28	34.8

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26050M3	1/2	4	9.4	9.5	18.9	3.82	5.1	19	24.1
26050M3A	1/2	4	9.4	9.5	18.9	3.82	5.1	19	24.1
26075M3	3/4	5	10.3	10.6	20.9	3.82	5.3	21	26.3
26100M3	1	7	11.9	11.7	23.6	3.82	5.9	24	29.9
26150M3	1 1/2	9	13.5	13.6	27.1	3.82	6.8	28	34.8
26200M3	2	11	15.2	15.1	30.3	3.82	8.1	30	38.1
26300M3	3	15	18.5	23.5	42	3.82	9.2	54	63.2
26500M3	5	26	27.6	29.5	57.1	3.82	14.3	65	79.3

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26050M	1/2	4	9.4	9.4	3.82	5.1
26075M	3/4	5	10.3	10.3	3.82	5.3
26100M	1	7	11.9	11.9	3.82	5.9
26150M	1 1/2	9	13.5	13.5	3.82	6.8
26200M	2	11	15.2	15.2	3.82	8.1
26300M	3	15	18.5	18.5	3.82	9.2
26500M	5	26	27.6	27.6	3.82	14.3
26750M	7 1/2	39	39.3	39.3	3.82	20.3

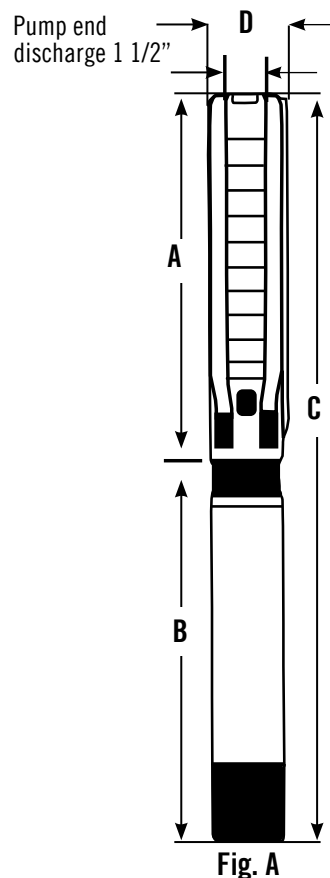


Fig. A

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	20'	40'	60'	80'	100'
	0		37.1	32.6	25.8	17.5
	30	22.4	9.7			
	50					

3/4 HP	PSI	20'	40'	60'	80'	100'	120'	140'
	0			35.9	32.6	25.0	19.7	7.8
	30	28.4	22.6	14.8				
	50	11.4						

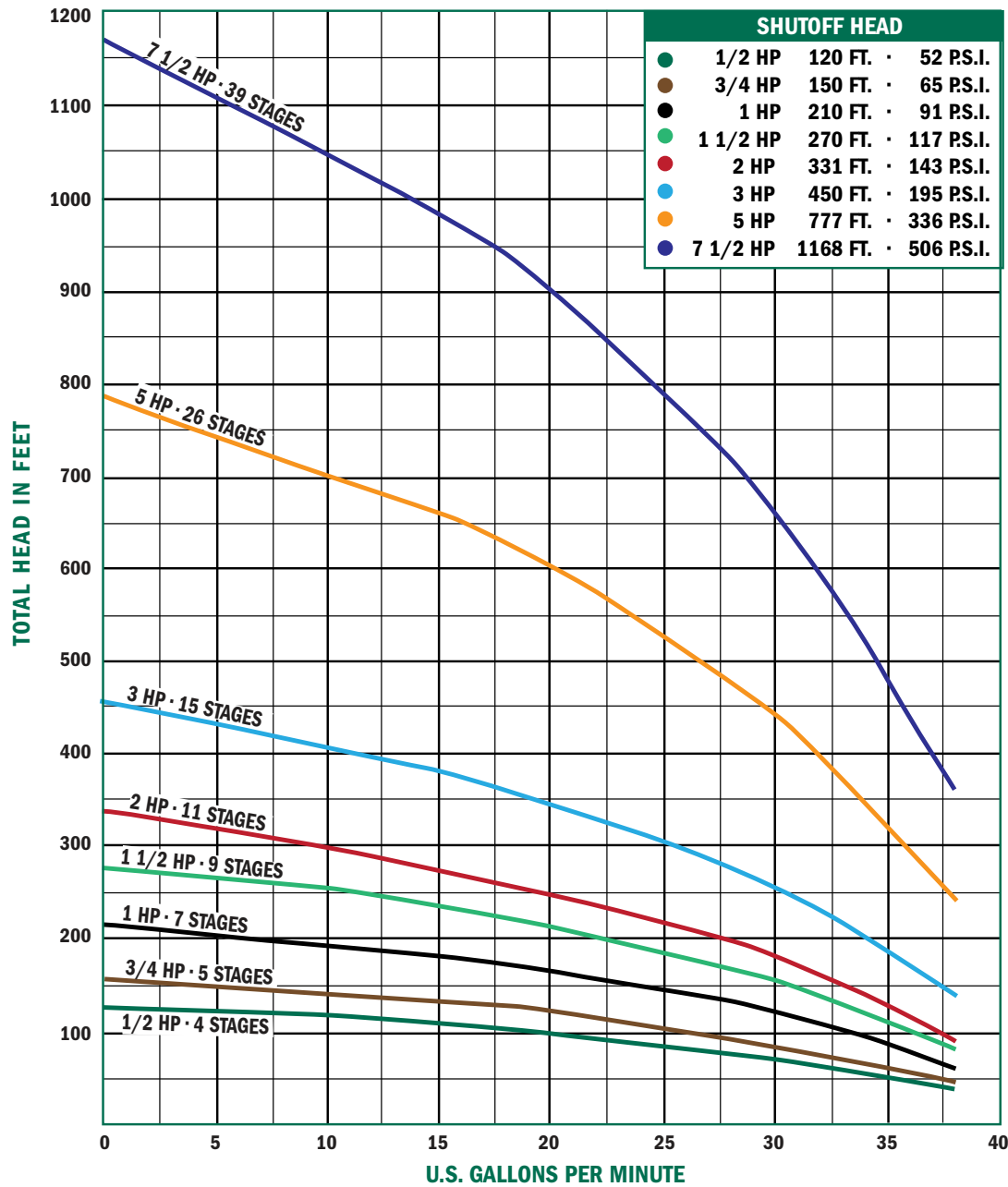
1 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'
	0					33.4	29.8	26.0	20.8	13.2
	30		31.8	28.1	23.8	17.6	8.9			
	50	25.9	22.2	15.2						

1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'
	0							31.8	29.0	26.0	22.1	16.9	10.1
	30			33.3	30.6	27.7	24.3	19.9	13.9				
	50	32.5	29.7	26.7	23.1	18.3	11.8						

2 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'
	0							32.3	29.9	27.3	24.5	21.2	17.3	12.5
	30			33.4	31.2	28.7	26.0	23.0	19.5	15.2	10.1			
	50	32.8	30.5	27.9	25.1	22.0	18.2	13.7	8.4					

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

M Series - 25 GPM



Submersible Pumps

3 HP	PSI	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'
	0							32.9	31.3	29.6	27.9	26.0	21.2	14.4
	30			33.8	32.2	30.5	28.8	27.0	25.0	22.7	19.9	16.5	8.0	
	50	33.3	31.7	30.0	28.3	26.4	24.3	21.9	18.9	15.3	11.1			

5 HP	PSI	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'
	0					33.0	31.1	29.1	27.1	24.8	22.0	18.5	14.2	9.3
	30			33.5	31.6	29.7	27.6	25.4	22.8	19.5	15.5	10.6	8.0	
	50	33.2	32.3	31.3	29.4	27.3	25.0	22.3	18.9	14.8	9.8			

7 1/2 HP	PSI	460'	500'	540'	580'	620'	660'	700'	740'	780'	820'	860'	900'	940'	980'	1020'	1060'
	0			33.9	32.7	31.4	30.1	28.8	27.4	26.0	24.3	22.5	20.3	17.9	15.0	11.8	8.4
	30		33.0	31.8	30.5	29.2	27.8	26.4	24.8	23.0	20.9	18.6	15.8	12.7	9.3		
	50	32.8	31.6	30.3	29.0	27.6	26.1	24.5	22.7	20.6	18.1	15.3	12.2	8.8			

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

G Series - 40 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All G Series Stainless Steel Pump Ends come with a 2" discharge and sizes range from 1 to 10 horse power (HP).

Two Wire Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26100G2	1	4	14.4	11.7	26.1	3.32	8.2	24	32.2
26150G2	1 1/2	5	16.1	13.6	29.7	3.82	9.3	28	37.3

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26100G3	1	4	14.4	11.7	26.1	3.82	8.2	24	32.2
26150G3	1 1/2	5	16.1	13.6	29.7	3.82	9.3	28	37.3
26200G3	2	7	19.4	15.1	34.5	3.82	11.5	30	41.5
26300G3	3	9	22.7	23.5	46.2	3.82	13.7	54	67.7
26500G3	5	12	27.7	29.5	57.2	3.82	17	65	82

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26100G	1	4	14.4	14.4	3.82	8.2
26150G	1 1/2	5	16.1	16.1	3.82	9.3
26200G	2	7	19.4	19.4	3.82	11.5
26300G	3	9	22.7	22.7	3.82	13.7
26500G	5	12	27.7	27.7	3.82	17
26750G	7 1/2	21	42.5	42.5	3.82	26.7
261000G	10	30	57.6	57.6	3.82	37

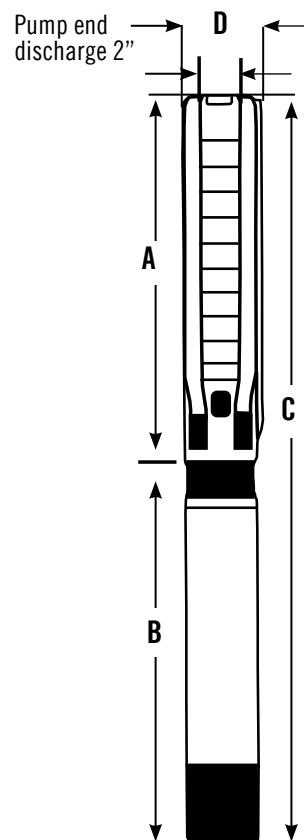


Fig. A

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	20'	40'	60'	80'	100'
0			64.0	54.5	42.0	18.0
30		32.0	6.0			
50						

1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'
0				60.1	54.0	43.2	23.4
30		50.0	35.0				
50							

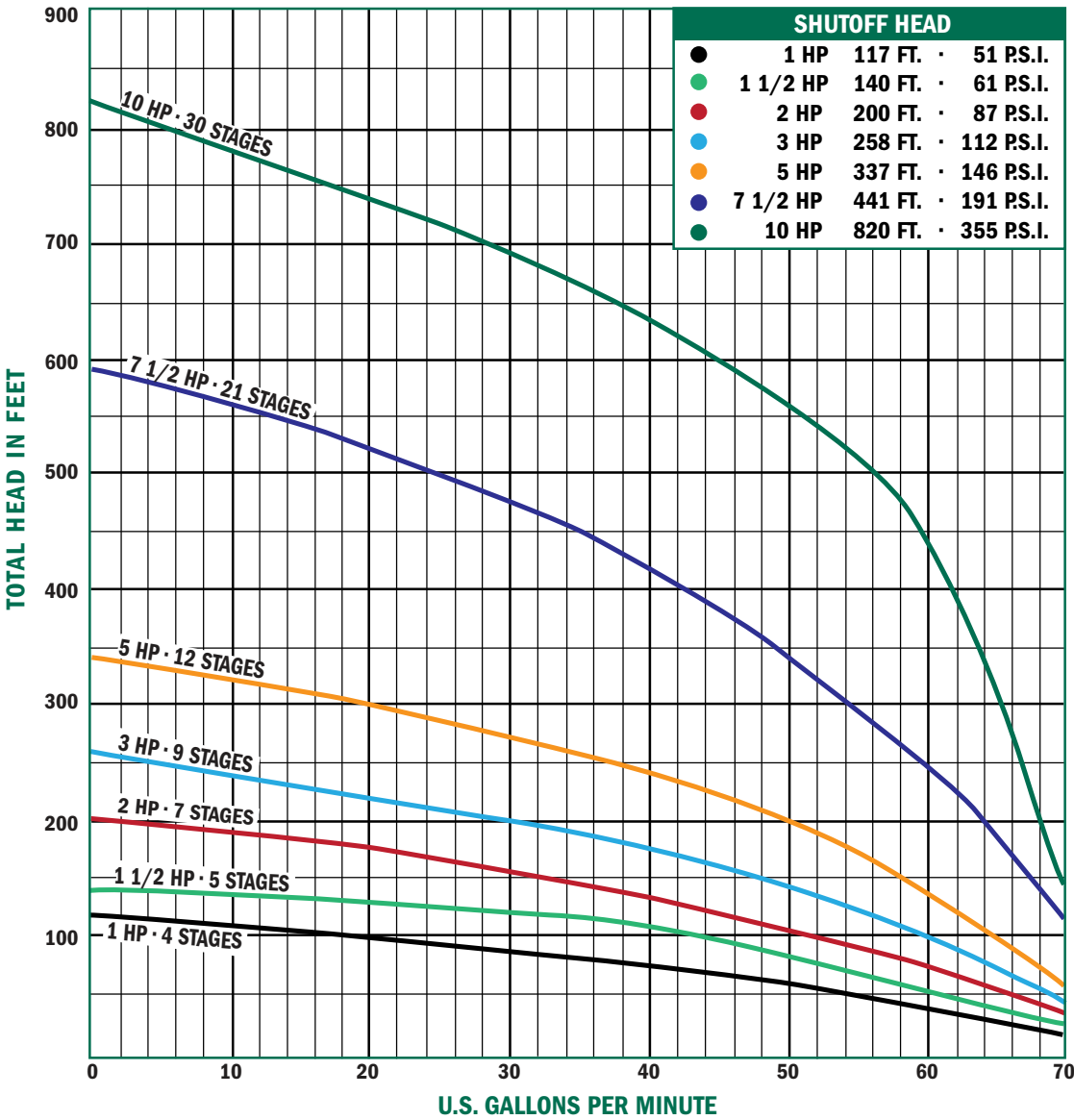
2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'
0					61.0	56.7	51.7	43.2	29.9
30		58.9	54.7	48.3	37.6	22.3			
50		45.5	33.2						

3 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'
0					65.6	61.5	58.1	54.8	50.2	43.2	33.2	20.8
30		63.6	59.8	56.6	52.9	47.3	38.9	27.7				
50		55.6	51.4	45.0	35.7	23.7						

5 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'
0						63.2	60.6	58.3	55.8	52.6	48.2	42.2	34.6	25.6	
30			64.8	62.0	59.5	57.2	54.4	50.7	45.6	38.9	30.6	21.2			
50		61.2	58.8	56.4	53.4	49.3	43.7	36.5	27.8						

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

G Series - 40 GPM



7½ HP	PSI	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'
	0							64.0	62.4	61.0	59.6	58.3	56.9	53.6	48.9	42.2	33.4	22.9
	30			64.9	63.3	61.7	60.3	59.0	57.7	56.2	54.6	52.7	50.4	44.2	36.0	25.8		
	50	64.4	62.8	61.3	59.9	58.6	57.2	55.8	54.0	52.0	49.5	46.6	43.1	34.5	24.2			

10 HP	PSI	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'
	0	69.5	68.3	66.8	65.3	63.9	62.0	59.5	56.0	51	45	37.5	28	17.3	5
	30	67.8	66.3	64.6	63.0	61.1	58.4	54.3	49.0	42	34.5	24.3	13		
	50	66.4	64.8	63.2	61.3	58.9	55.1	49.8	43.2	35.6	25.8	14.4			

FRICION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

H Series - 70 GPM

A.Y. McDonald offers a full line of submersible pump ends built for years of trouble free operation, with high-efficiency stainless steel impellers and diffusers. These submersibles offer peak capacity performance in 5, 10, 18, 25, 40, and 70 gallons per minute (GPM). Other features include stainless steel discharge head with a built-in check valve, stainless steel suction screen, and stainless steel shaft and coupling.

All H Series Stainless Steel Pump Ends come with a 2" discharge and sizes range from 2 to 10 horse power (HP).

Three Wire** Single Phase

Model No.	HP	Stages	A	B	C	D	Pump Wt.	Motor Wt.	Total Wt.
26200H3	2	3	14.9	15.1	30	3.82	8.2	30	38.2
26300H3	3	5	20	23.5	43.5	3.82	10.4	54	64.4
26500H3	5	8	27.7	29.5	57.2	3.82	13.7	65	78.7

Pump Ends

Model No.	HP	Stages	A	C	D	Wt.
26200H	2	3	14.9	14.9	3.82	8.2
26300H	3	5	20	20	3.82	10.4
26500H	5	8	27.7	27.7	3.82	13.7
26750H	7 1/2	12	37.9	37.9	3.82	18
261000H	10	16	53	53	3.82	29

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 108-118).

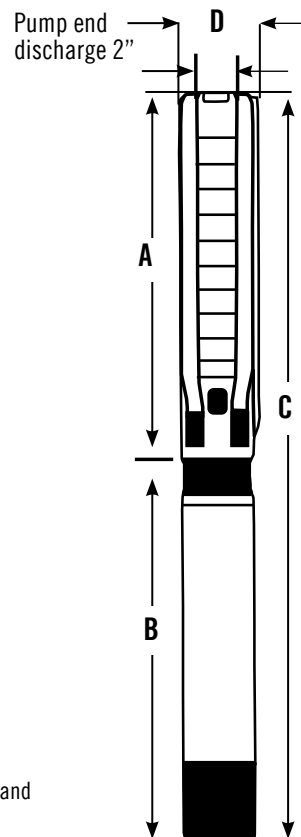


Fig. A

Output - in Gallons Per Minute (Depth to Water)

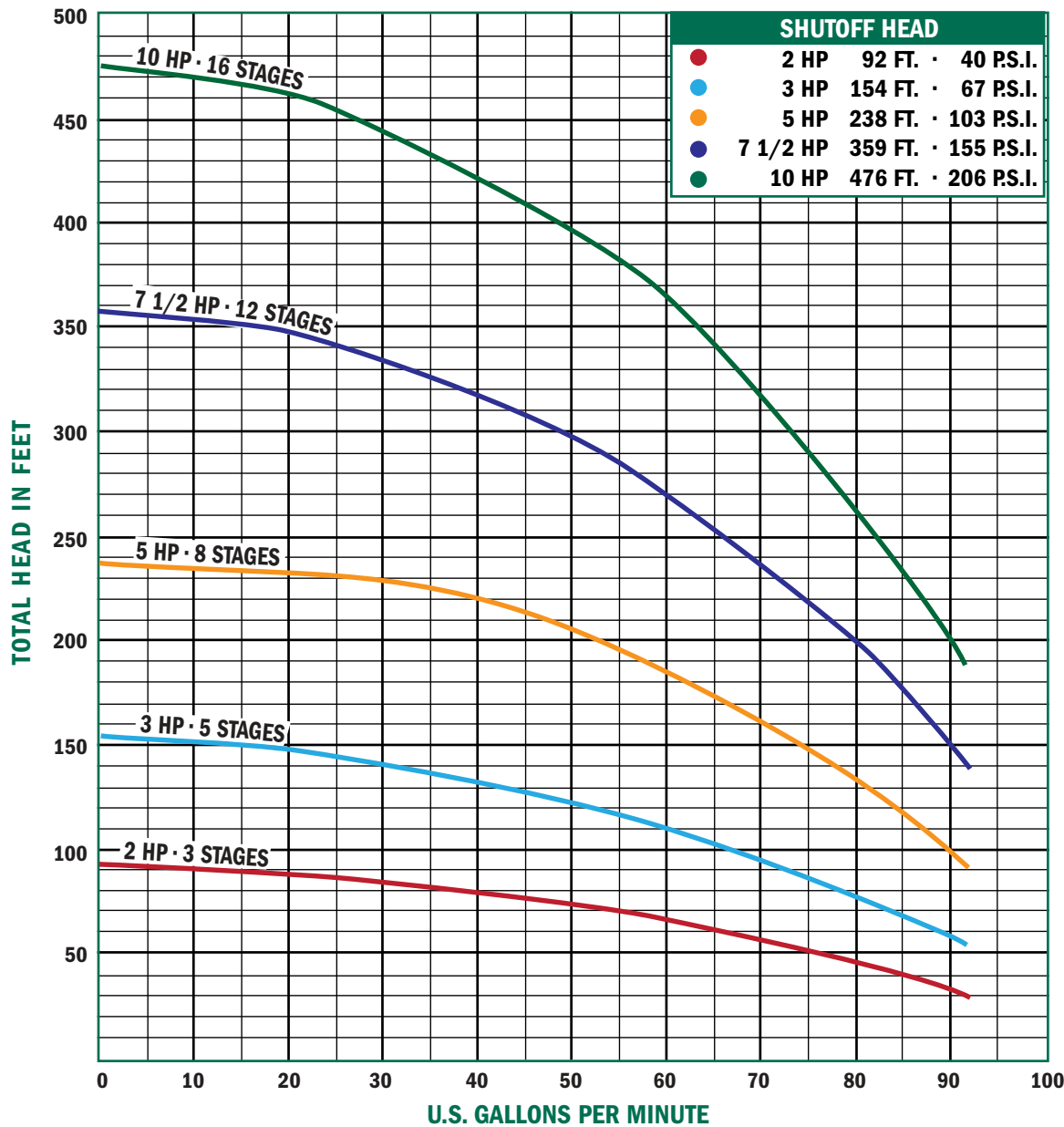
2 HP	PSI	20'	40'	60'	80'
	0		89.1	68.9	38.8
	30	60.8			
	50				

3 HP	PSI	20'	40'	60'	80'	100'	120'
	0			91.1	78.8	68.9	51.0
	30	74.1	61.8	42.1			
	50	37.1					

5 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'
	0					88.9	84.8	78.5	69.4	59.4	49.7
	30	91.0	87.2	82.3	74.6	64.7	54.9	44.4			
	50	80.2	71.6	61.6	51.9	39.8					

FRICTION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

H Series - 70 GPM



Submersible Pumps

7 1/2 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'
	0						90.2	87.7	84.8	81.0	75.7	69.4	62.7	56.1	49.7
	30			89.0	86.4	83.2	78.7	72.9	66.3	59.6	53.2	46.3			
	50	88.2	85.5	81.9	77.0	70.9	64.2	57.6	51.2	43.7					

10 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'
	0							88.5	86.4	85.2	84.3	83.2	81.3	78.4	74.5	64.5	54.2	43.8
	30			90.1	87.4	85.7	84.7	83.8	82.4	80.1	76.7	72.4	67.4	62.1	56.9	47.0		
	50	89.2	86.8	85.4	83.5	81.8	79.2	75.5	70.9	65.7	60.4	55.4	50.5	45.2				

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Bottom Suction Pump

The new A.Y. McDonald Bottom Suction-Cistern Pump is a durable product that delivers high performance for clear water, gray water, or filtered effluent service operations. Its unique bottom suction design provides maximum drawdown without decreasing the pump's overall longevity.

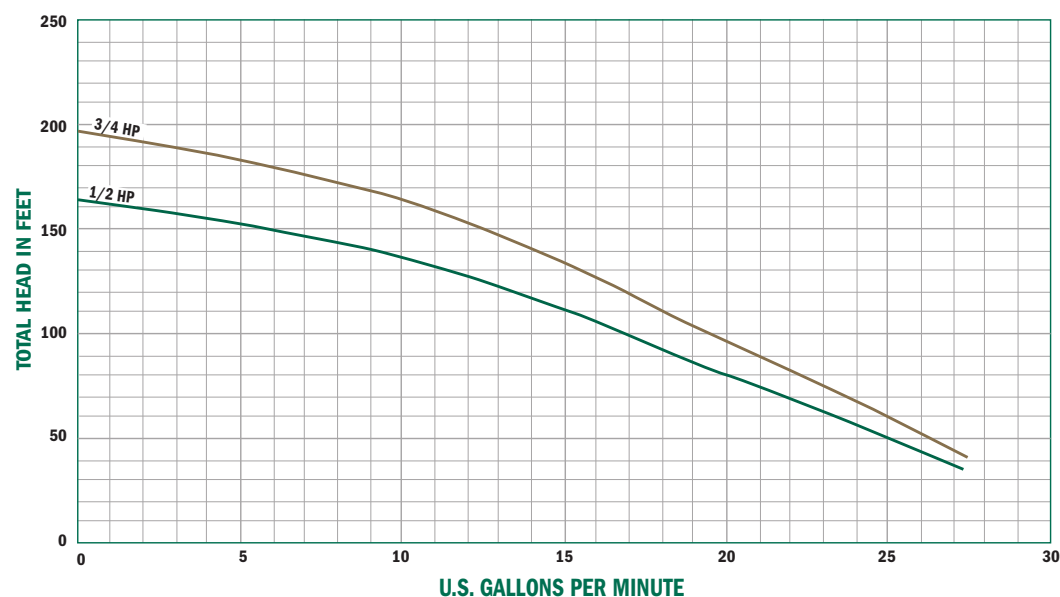
The Bottom Suction-Cistern pump can pass solids up to 1/8". The bottom suction pumps are intended for use in cistern or tank applications. These pumps are well suited to meet agricultural, residential, and commercial installation needs

Features:

- Bottom suction
- Quiet operation
- Corrosion resistant
- Available in 115V & 230V
- CSA listed

Applications:

- Dirty water applications
- Rain water collection
- Pond applications
- Cisterns for both clean & dirty water
- Potable water
- Vertical or Horizontal installation



Model No.	Description	HP	Carton Qty	Volt	Run Amp.	Wt.
22050L2AB	Bottom Suction Sub Pump 2W	1/2	1	115	9.5	19.00
22075L2AB	Bottom Suction Sub Pump 2W	3/4	1	115	12	23.00
22050L2B	Bottom Suction Sub Pump 2W	1/2	1	230	6.8	19.00
22075L2B	Bottom Suction Sub Pump 2W	3/4	1	230	6.8	23.00