



22000 Series

4" Thermoplastic Submersible Pumps



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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.

All four inch submersibles are supplied with grounded leads meeting the National Electrical Code (N.E.C.) specifications.

- Powered by NEMA approved stainless steel motors with built-in lightning protection on all single phase pumps.
- Three wire single phase models include pump, motor, 48" leads, control box and check valve.
- Two wire single phase models include pump, motor, 48" leads, and check valve.

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



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 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).

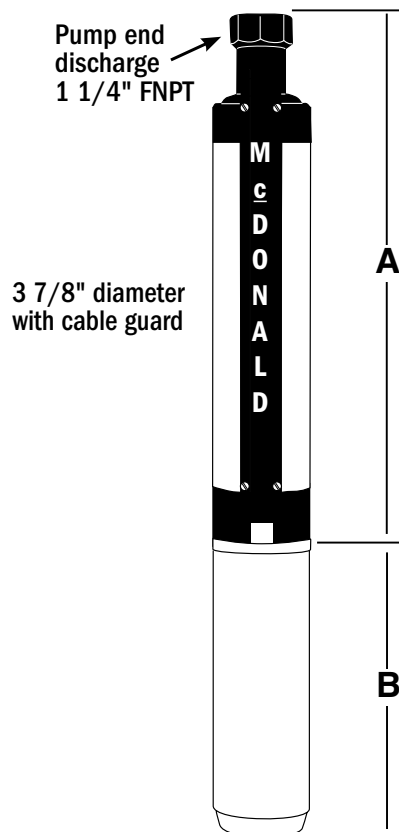
Models Available

Two Wire Single Phase

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

Three Wire Single Phase

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



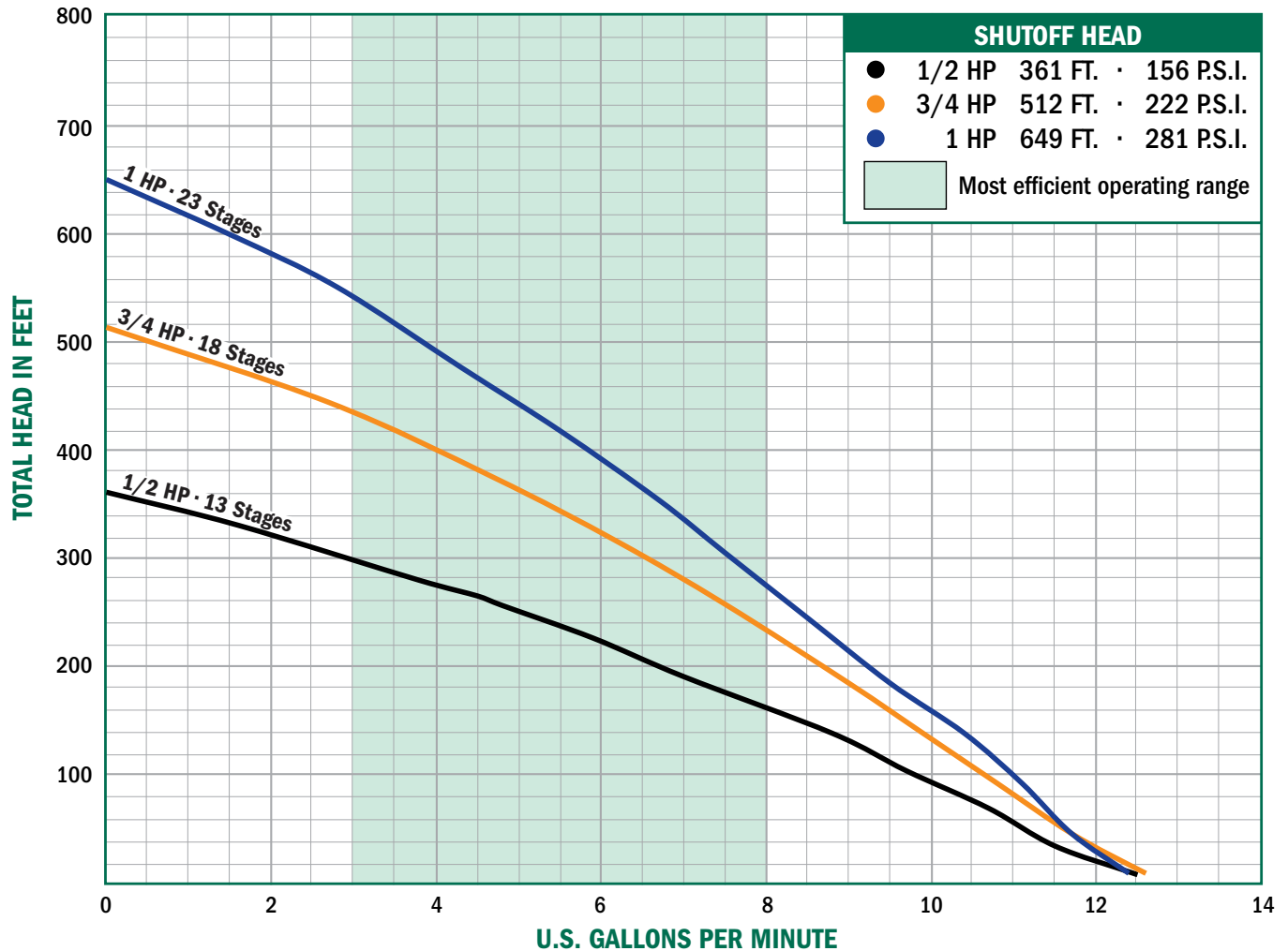
Output - in Gallons Per Minute (Depth to Water)

	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	10.8	10.3	9.8	9.3	8.8	8.3	7.7	7.2	6.6	6.1	5.5	4.9	4.2	3.5	2.7	1.9		
	40	10.3	9.8	9.3	8.8	8.3	7.8	7.2	6.7	6.1	5.5	4.9	4.3	3.6	2.8	2.0			
	50	9.9	9.4	8.9	8.3	7.8	7.3	6.7	6.2	5.6	4.9	4.3	3.6	2.9	2.0				
	60	9.4	8.9	8.4	7.9	7.3	6.8	6.2	5.6	5.0	4.4	3.7	2.9	2.1					

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

J Series - 5 GPM



	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			

FRICITION 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 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).

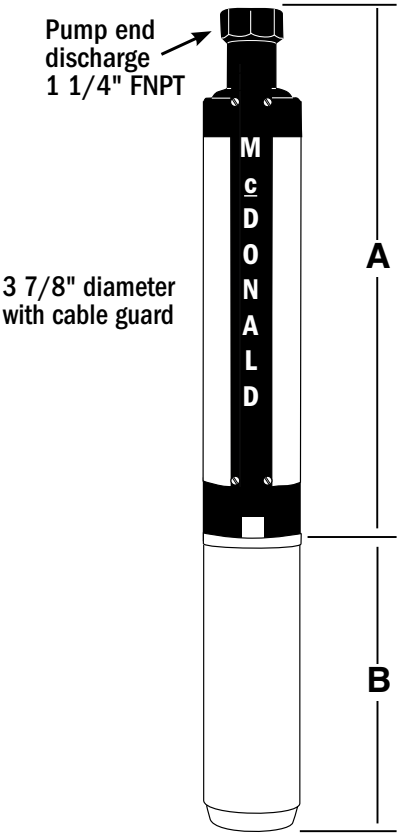
Models Available

Two Wire Single Phase

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

Three Wire Single Phase

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



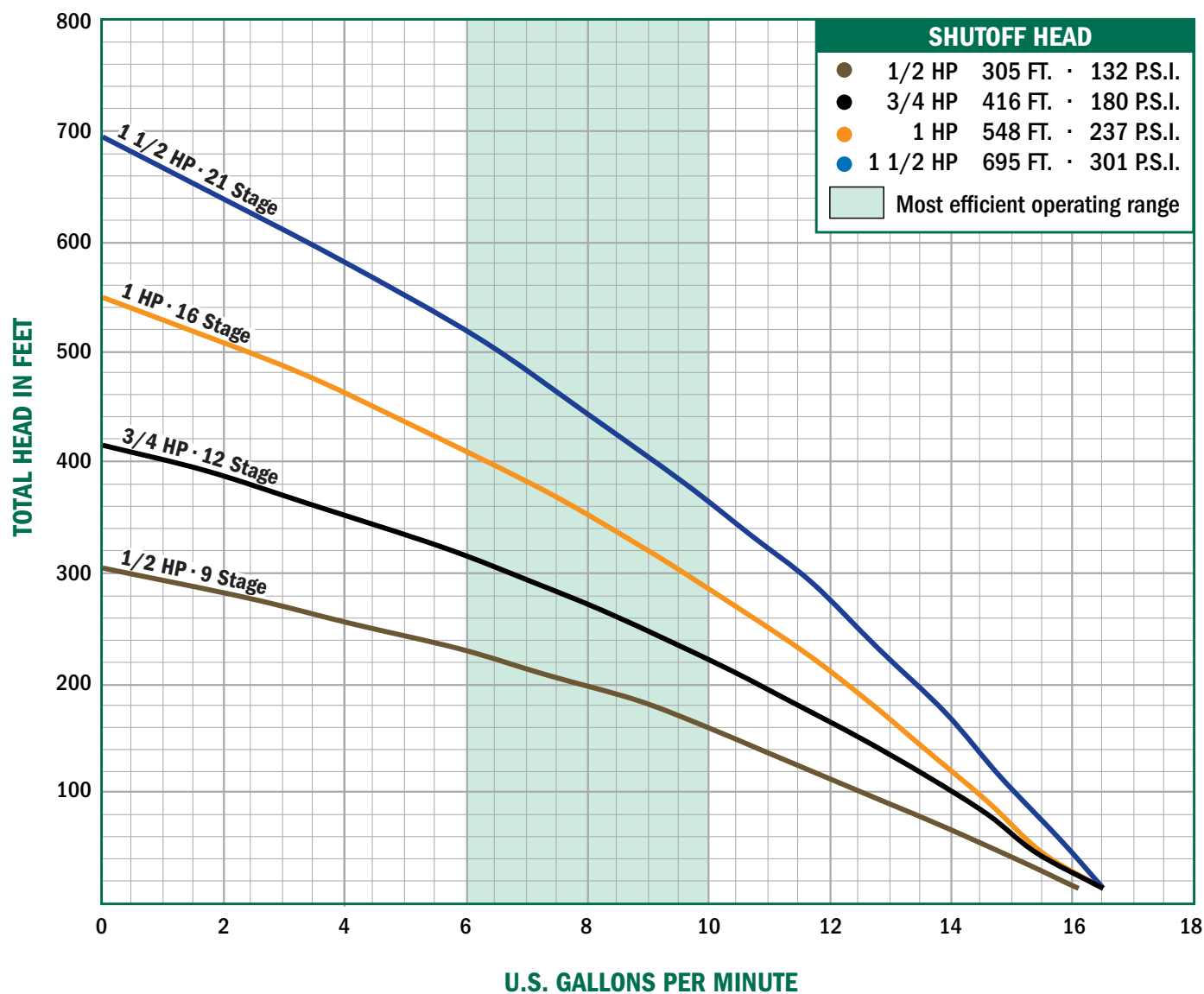
Output - in Gallons Per Minute (Depth to Water)

	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					

FRICION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

V Series - 7 GPM



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				
1½ 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									

FRICTION 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 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).

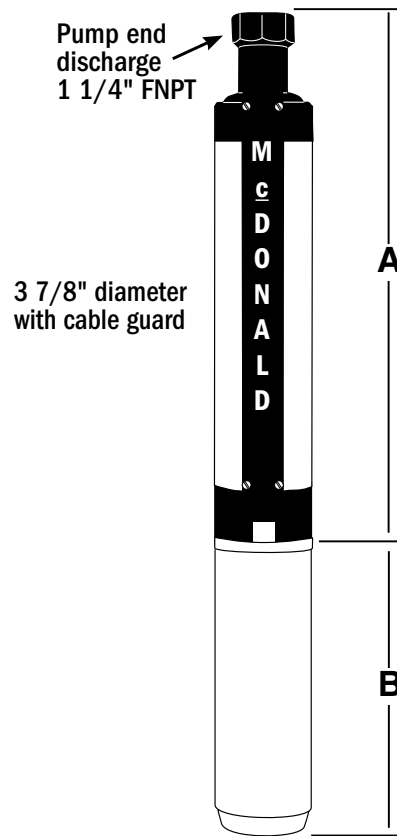
Models Available

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

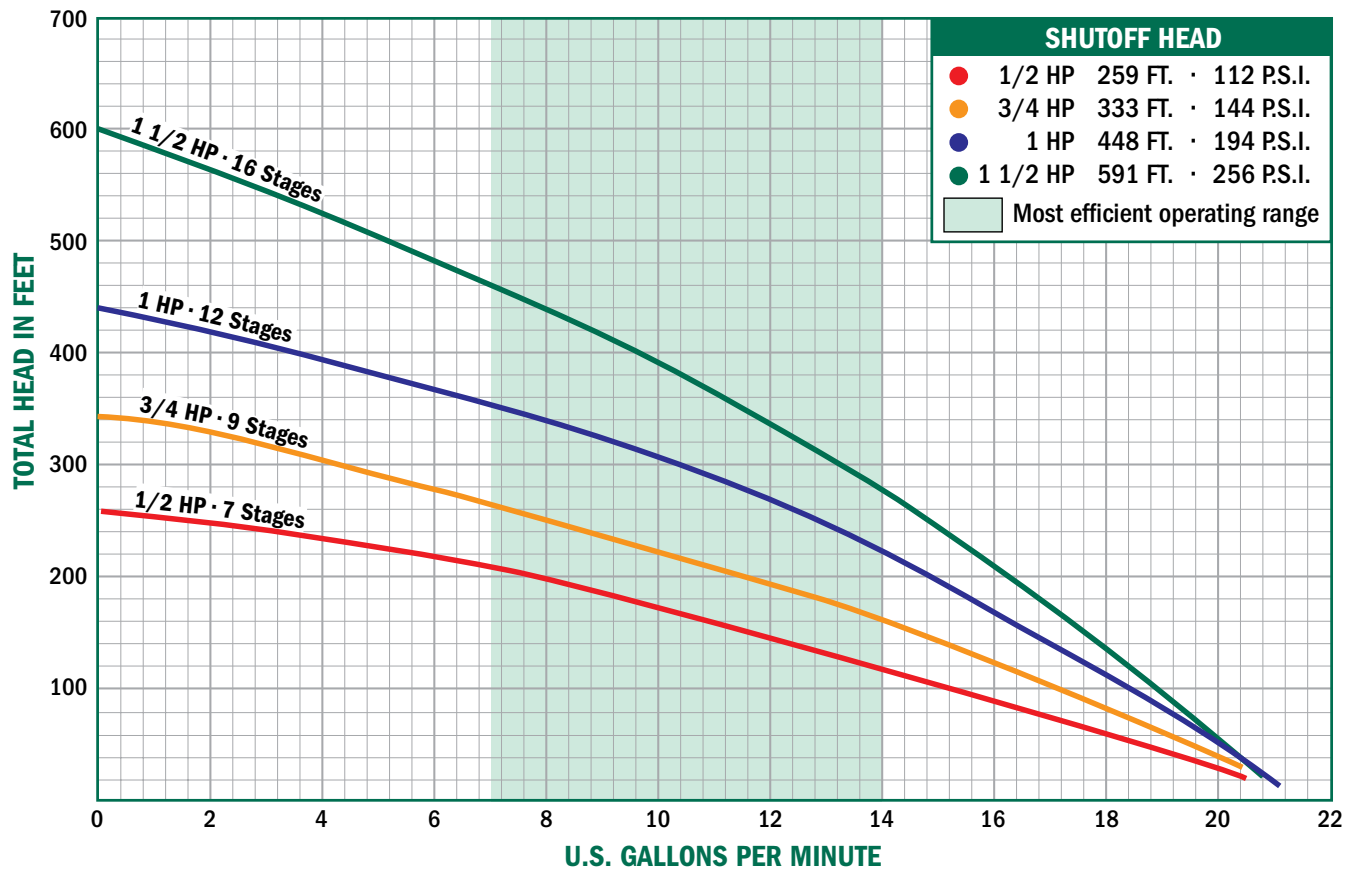


Output - in Gallons Per Minute (Depth to Water)

1/2 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'			
	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									
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'
	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					
1½ 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								

FRICTION 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 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).

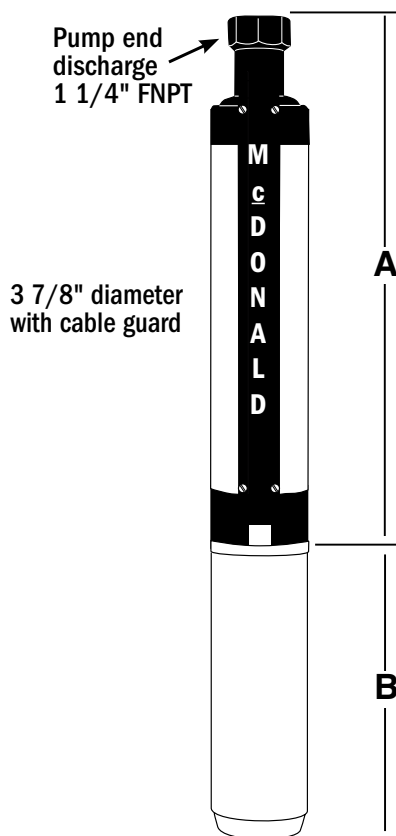
Models Available

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



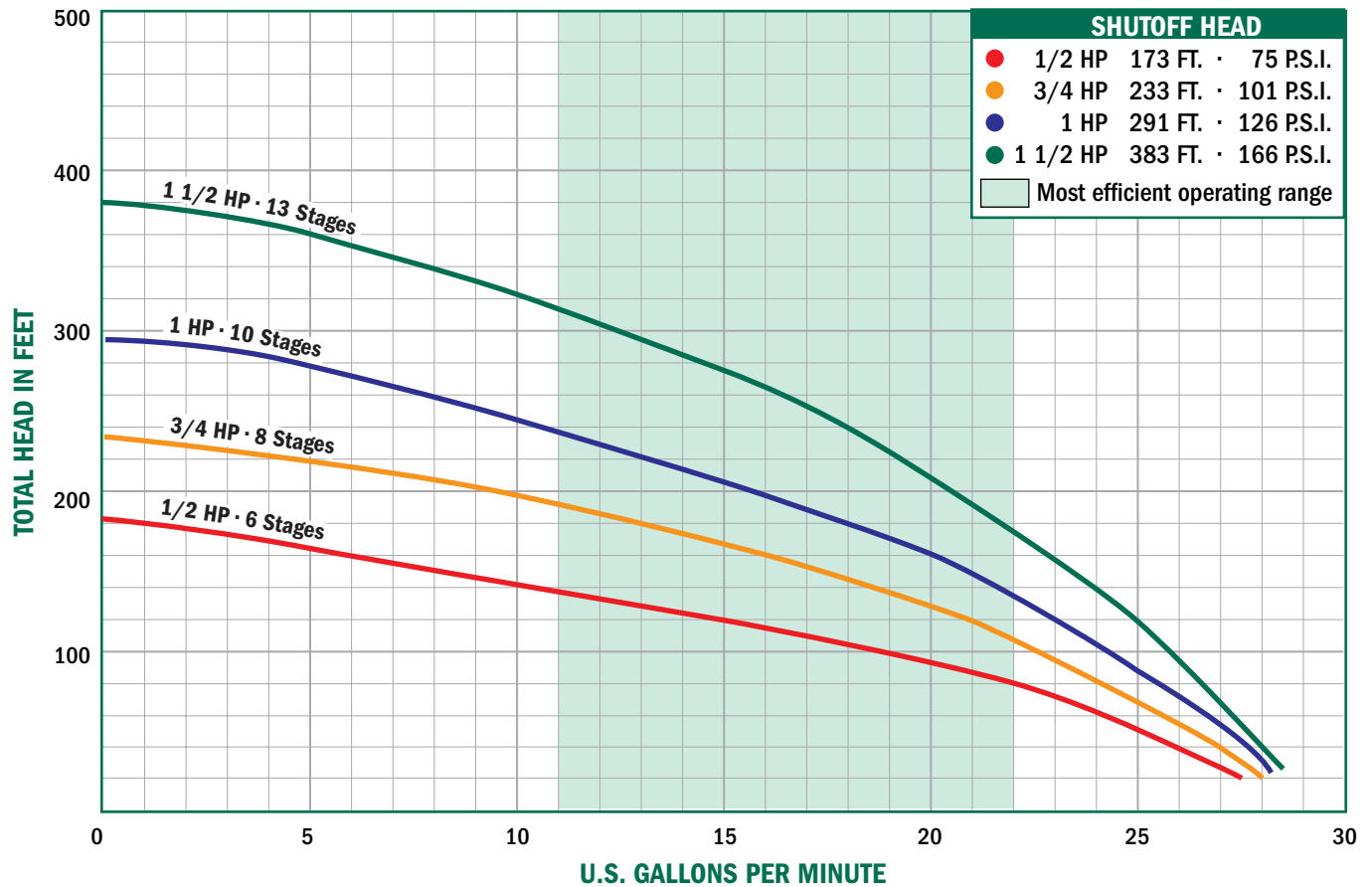
Output - in Gallons Per Minute (Depth to Water)

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

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
3/4 HP	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



	PSI	25	50	75	100	125	150	175	200	225	250	300
1 HP	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					
	PSI	50	100	150	200	250	300	350				
1 1/2 HP	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							

FRICTION 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 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).

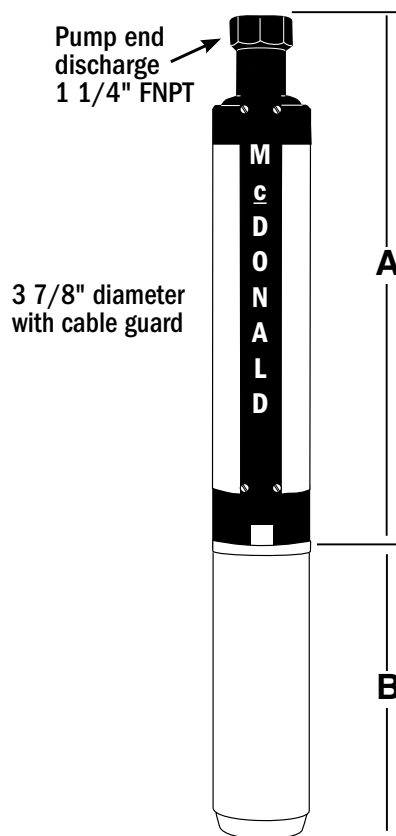
Models Available

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



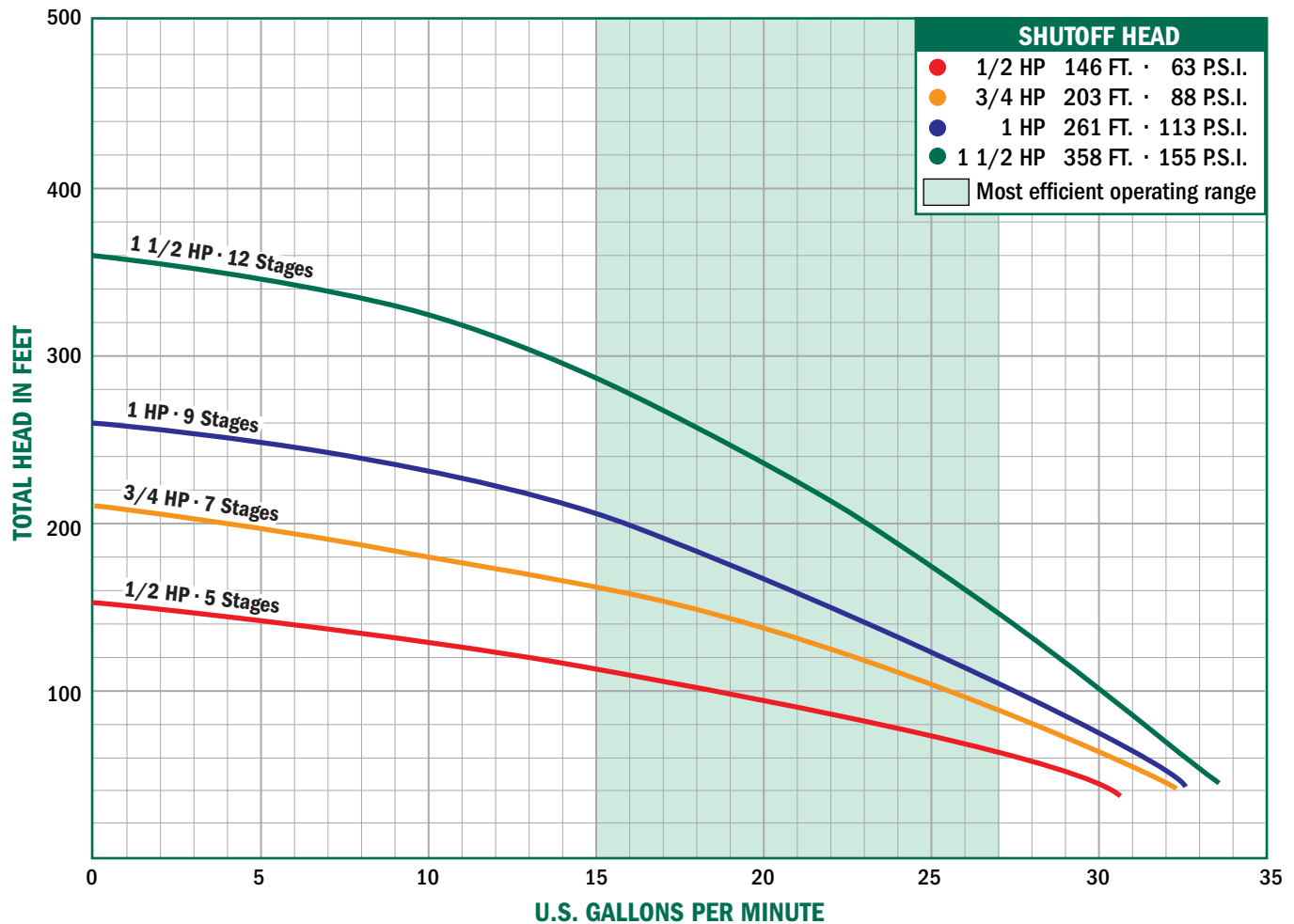
Output - in Gallons Per Minute (Depth to Water)

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							

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

P Series - 20 GPM



	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						
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

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 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).

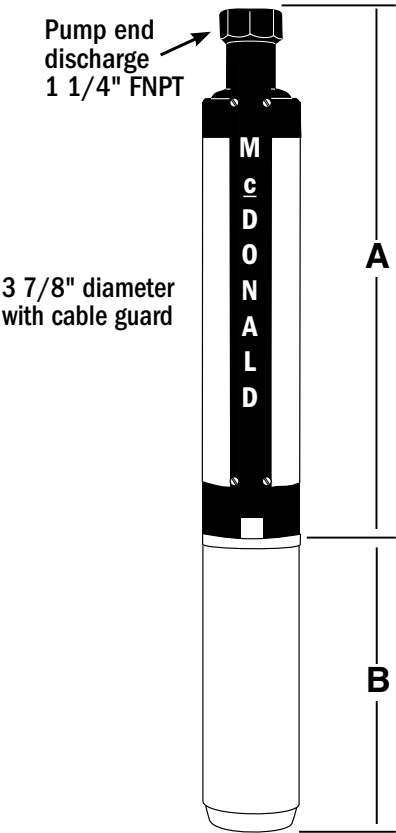
Models Available

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

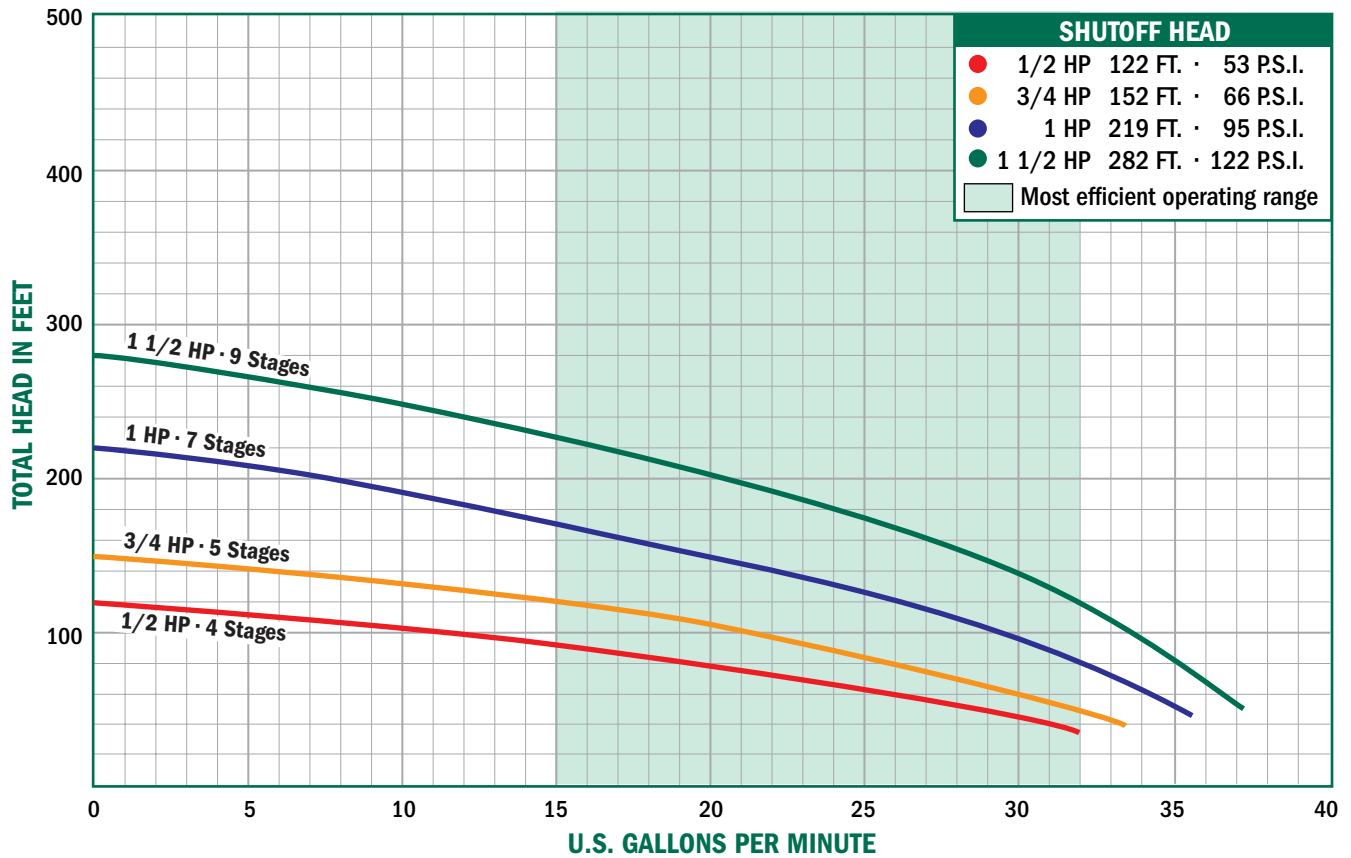


Output - in Gallons Per Minute (Depth to Water)

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									
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



4" Water Well - Two Wire - Single Phase - 60 HZ

HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	A.Y. McDonald Model No.
1/3	.25	300	115	1.75	244 502 90	3129-731
		300	230	1.75	244 503 90	3129-732
1/2	.37	300	115	1.60	244 504 90	3129-736
		300	230	1.60	244 505 90	3129-733
3/4	.55	300	230	1.50	244 507 90	3129-734
1	.75	650	230	1.40	244 508 90	3129-735
1 1/2	1.1	650	230	1.30	244 309 90	3129-755



4" Water Well - Three Wire - Single Phase - 60 HZ

HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	Franklin Control Box	A.Y. McDonald Model No.	A.Y. McDonald Control Box
1/3	.25	300	115	1.75	214 502 90	280 102 49	3129-364	6618-116
		300	230	1.75	214 503 90	280 103 49	3129-365	6618-117
1/2	.37	300	115	1.60	214 504 90	280 104 49	3129-366	6618-118
		300	230	1.60	214 505 90	280 105 49	3129-367	6618-119
3/4	.55	300	230	1.50	214 507 90	280 107 49	3129-359	6617-110
1	.75	650	230	1.40	214 508 90	280 108 49	3129-360	6617-111
1 1/2	1.1	650	230	1.30	224 300 92	282 300 81	3129-361	6617-428
2	1.5	650	230	1.25	224 301 92	282 301 81	3129-396	6617-113

4" Water Well - Three Wire - Three Phase - 60 HZ

HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	A.Y. McDonald Model No.
1/2	.37	300	230	1.60	234 511 92	3129-788
		300	460	1.60	234 521 94	3129-789
3/4	.55	300	200	1.50	234 502 92	3129-853
		300	230	1.50	234 512 92	3129-790
		300	460	1.50	234 522 94	3129-791
1	.75	650	200	1.40	234 503 92	3129-856
		650	230	1.40	234 513 92	3129-792
		650	460	1.40	234 523 94	3129-793
1 1/2	1.1	650	200	1.30	234 504 92	3129-839
		650	230	1.30	234 514 92	3129-794
		650	460/380*	1.30/1.0	234 524 94	3129-795
		650	575	1.30	234 534 94	3129-869
2	1.5	650	200	1.25	234 305 92	3129-798
		650	230	1.25	234 315 92	3129-796
		650	460/380*	1.25/1.0	234 325 94	3129-797
		650	575	1.25	234 335 94	3129-855

Do not use motors in swimming areas

4" High Thrust Water Well - Three Wire - Single Phase - 60 HZ (Control Box Required)

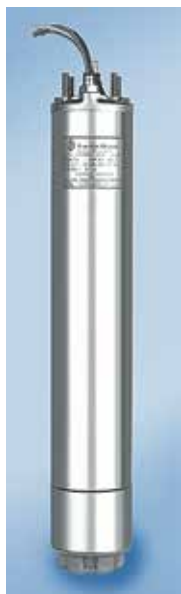
HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	Franklin Control Box	A.Y. McDonald Model No.	A.Y. McDonald Control Box
3	2.2	900	230	1.15	224 302 26	282 302 83	3129-363	6617-142
3	2.2	1500	230	1.15	224 302 86	282 302 83	3129-880	6617-142
5	3.7	1500	230	1.15	224 303 86	282 113 93	3129-717	6617-134

4" High Thrust Water Well - Three Wire - Three Phase - 60 HZ (Special Control Required - See note)

HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	A.Y. McDonald Model No.
3	2.2	900	200	1.15	234 306 26	3129-846
		900	230	1.15	234 316 26	3129-709
		900	460/380*	1.15	234 326 26	3129-807
		900	575	1.15	234 336 26	3129-868
5	3.7	1500	200	1.15	234 307 86	3129-847
		1500	230	1.15	234 317 86	3129-718
		1500	460/380*	1.15	234 327 86	3129-808
		1500	575	1.15	234 337 86	3129-835
7 1/2	5.5	1500	200	1.15	234 308 86	3129-848
		1500	230	1.15	234 318 86	3129-783
		1500	460/380*	1.15	234 328 86	3129-784
		1500	575	1.15	234 338 86	3129-866
10	7.5	1500	460/380*	1.15	234 595 86	3129-785
		1500	575	1.15	234 598 86	3129-883

Note:
Franklin does not manufacture three-phase controls. Standard three-phase contactor with overload protection is required for positive motor protection.

Warranty is void where proper overload protection is not employed.





Quick Disconnect (QD)

- For use with three wire single phase submersible motors 1/3 through 1 HP

HP	KW	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/3	.25	115	60	280 102 49	6618-116
1/3	.25	230	60	280 103 49	6618-117
1/2	.37	115	60	280 104 49	6618-118
1/2	.37	230	60	280 105 49	6618-119
3/4	.55	230	60	280 107 49	6617-110
1	.75	230	60	280 108 49	6617-111

Capacitor Start/Capacitor Run CRC Control Boxes

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/2	230	60	282 405 50	6617-116
3/4	230	60	282 407 50	6617-117
1	230	60	282 408 50	6617-118



Standard Integral HP

- For use with single phase submersible motors 1 1/2 through 5 HP

HP	KW	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1 1/2	1.1	230	60	282 300 81	6617-428
2	1.5	230	60	282 301 81	6617-113
3	2.2	230	60	282 302 81	6617-114
5	3.7	230	60	282 113 81	6617-133

Deluxe Integral HP Includes Magnetic Contactor

- For use with single phase submersible motors 2 through 5 HP - 60 HZ

HP	KW	Volts	Coil Inrush Current	Franklin Model No.	A.Y. McDonald Model No.
2	1.5	230	0.22 Amps	282 301 83	6617-141
3	2.2	230	0.22 Amps	282 302 83	6617-142
5	3.7	230	0.22 Amps	282 113 93	6617-134



QD Pumptec

- For use with 4" single phase, three wire submersible motors 1/3 through 1 HP.

Protects against:

- Low yield wells - Low voltage - Power surges
- Air or gas locked pump - Drop in water level
- Clogged well screen - Broken shaft or coupling - Worn pump parts

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/3-1	230	60	580 007 0600	6617-145



Pumptec - with remote reading

- For use with 4" single phase submersible motors 1/3 through 1 1/2 HP.

Protects against:

- Low yield wells - Low voltage
- Air or gas locked pump - Drop in water level
- Clogged well screen - Broken shaft or coupling - Worn pump parts

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/3-1 1/2	115/230	60	580 002 0600	6617-425



Pumptec-Plus

- For use with 4" single phase submersible motors 1/2 through 5 HP.

Protects against:

- Over/under load - Over/under voltage
- Low yield wells - Mud or sand clogging
- Cavitation (air lock) - Drop in water level
- Rapid cycling - Faulty check valve

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/2-5	230	60	580 006 0100	6617-143

Pump Accessories

A.Y. McDonald offers a full line of accessories to complete your pumping system.



No-Lead Silicon Bronze Check Valves Spring Loaded

400 PSI working pressure. Bronze finished body

500SB - FNPT x FNPT, No tappings
3/4", 1", 1 1/4", 1 1/2", 2"

540SB - FNPT x FNPT, tapped 1/8" and 1/4"
1", 1 1/4", 1 1/2", 2"

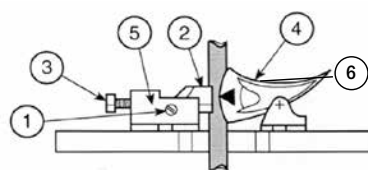
500MS - FNPT x MNPT, No tappings
1" x 1 1/4", 1 1/4" x 1 1/4", 2" x 2"



Pipe Holder - 8871

For 1", 1 1/4", 1 1/2", or 2" pipe

- Solid cast iron construction
- Time proven design
- 2000 lb. non-shock load limit



Pipe Holder Repair Parts

- 1 - 3117-612 Set screw 1/2-13 x 3/4
- 2 - 6814-236 Adjusting slide
- 3 - 3117-611 Adjusting screw
- 4 - 6814-235 Pipe holder dog
- 5 - 6814-234 Body Casting
- 6 - 6814-237 Pin
- 7 - 6814-238 Wood Base



Stainless Steel Check Valves - Spring Loaded

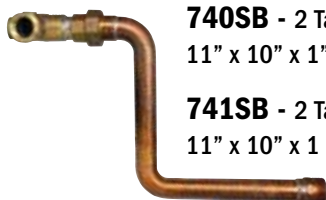
400 PSI working pressure.

500MSS - FNPT x MNPT, No tappings
1" x 1 1/4", 1 1/4" x 1 1/4", 2" x 2"

No-Lead Elevated Tank Tees

740SB - 2 Taps - 3/4" x 1"
11" x 10" x 1" - Length x Height x Connection

741SB - 2 Taps - 1" x 1 1/4"
11" x 10" x 1 1/4" - Length x Height x Connection



6214 - No-Lead Pressure Relief Valves

- No-Lead Brass Construction
- Composition Disc on Brass Seat
- 180°F Max. Temperature
- Field Adjusting Not Recommended

Sizes Available:

- 1/2", 3/4", 1" - Factory set at 75 PSI or 30 PSI
- 1 1/4", 1 1/2", 2" - Factory Set at 65 PSI or 30 PSI



400SB - No-Lead Silicon Bronze Foot Valves

Perforated stainless steel strainer - Spring loaded
200 PSI working pressure
3/4", 1", 1 1/4", 1 1/2", 2"



1/2" - 1 1/4"



1 1/2" - 2"

Pump Accessories

Sanitary Well Seals

Two-piece, cast iron construction. Rubber Composition Seal.

459S - One Pipe

4" well..... 1", 1 1/4"
 4 1/2" well .. 1 1/4"
 5" well..... 1", 1 1/4"
 5 5/8" well .. 1 1/4"
 6" well..... 1", 1 1/4", 1 1/2"



460S - Two Pipe

4" well..... 1 1/4" x 1"
 5" well..... 1 1/4" x 1"
 5 5/8" well .. 1 1/4" x 1"
 6" well..... 1 1/4" x 1"
 6" well..... 1 1/2" x 1 1/4"



Plastic Sanitary Well Seals

Two-piece, plastic construction. Rubber Composition Seal.



401S - 4" well..... 1" 453S - 4 1/2" well 1 1/2"
 402S - 4" well..... 1 1/4" 501S - 5" well..... 1"
 451S - 4 1/2" well..... 1" 601S - 6" well..... 1"
 452S - 4 1/2" well 1 1/4" 602S - 6" well..... 1 1/4"

Also available in two pipe, contact factory.

Air Volume Controls

Float Types

894 3129-383 Deep Well



Diaphragm type

30-AV 3129-378 - 1/4"
 42-AV 3129-388 - 1/4"
 80-AV 3129-379 - 1/4"
 120-AV 3129-380 - 3/8"
 45-AV 3129-389 - 1/4"
 100-AV 3129-386 - 3/8"



REPAIR KITS available (see price list)

Float & Valve

8713 Float Valve

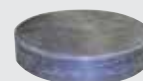
18" long - 3/4" or 1"

Repair Parts available (see price list)



8715 Floats for Float Valve

3" x 12" diameter float



Pressure Gauge

5999-897 Pressure Gauge

0-100 lbs. - 2" Dial - MPT. 1/4" No-Lead brass stem.
 Steel case, Vertical installation



For electrical accessories, please see price list.

"FSG" Pressure switches are rated to 1 1/2 HP, 115V, single phase and/or 2 HP, 230V, single phase or up to 3 HP, 230V, three phase. Submersible pumps above 2 HP, one phase require deluxe control boxes with these switches.

A.Y. McDonald

Model No.	Size	Setting	Model
3129-421	1/4"	20-40	(9013FSG2J20)
3129-423	1/4"	30-50	(9013FSG2J21)
3129-432	1/4"	40-60	(9013FSG2J24)
3129-442	1/4"	20-40	(9013FSG2J20C20) 20 pack
3129-443	1/4"	30-50	(9013FSG2J21C20) 20 pack
3129-448	1/4"	40-60	(9013FSG2J24C20) 20 pack



Switches with "P" include pulsation plug to dampen surges to the switch

3129-414	1/4"	20-40	(9013FSG2J20P)
3129-436	1/4"	30-50	(9013FSG2J21P)

A.Y. McDonald

Model No.	Size	Setting	Model
3129-430	1/4"	20-40	(9013GSG2J20)
3129-435	1/4"	30-50	(9013GSG2J21)
3129-434	1/4"	40-60	(9013GSG2J24)



A.Y. McDonald

Switches with "M4" include auto cut-off if pressure drops to about 10 PSIG below cut-in pressure - requires manual reset with lever provided.

3129-420	1/4"	20-40	(9013FSG2J20M4)
3129-433	1/4"	30-50	(9013FSG2J21M4)
3129-438	1/4"	40-60	(9013FSG2J24M4)



Switches with "M1" include manual cut-off lever to allow circuit interruption at the switch to service the pump.

3129-439	1/4"	30-50	(9013FSG2J21M1)
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A.Y. McDonald

Model No.	Size	Setting	Model
3129-457	1/4"	20-40	
3129-458	1/4"	30-50	
3129-459	1/4"	40-60	



Switches



A.Y. McDonald Mfg. Co. is a leading manufacturer of Water Works Brass, Plumbing Valves, Pumps and Water Systems, and High Pressure Gas Valves and Meter Bars. The Company has distinguished itself with a proud tradition of quality and reliability since its founding in 1856.

The mission of A.Y. McDonald Mfg. Co., in the words of our founder, is “to make good products and sell them honestly.” We, the stockholders and employees, accomplish this by extending the McDonald family culture through excellent customer service and by focusing on our customers’ needs.



WARNING: It is unlawful in CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014) to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.

