



# 24000 Series

High Flow 4" Stainless Steel 35-80 GPM



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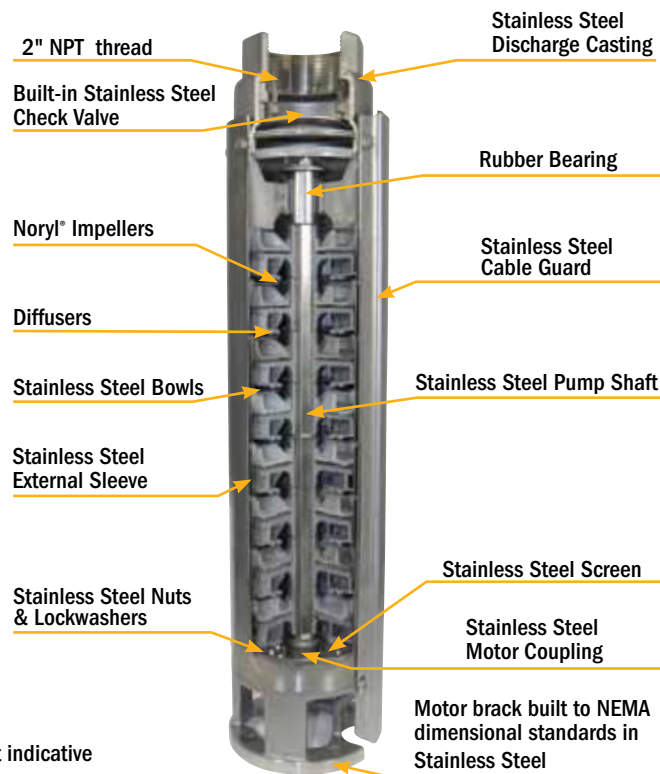
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A.Y. McDonald offers a full line of 4" submersibles ranging from 1 through 10 horsepower, with flow rates ranging from 35 through 80 GPM. Our 24000 high flow submersibles offer peak capacity performance in 35, 40, 55, 60, and 80 GPM models.

All 4" 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
- Delivery: up to 124 GPM at 3450 rpm
- Head: up to 1300' at 3450 rpm

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



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



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

# How to Order 4" Submersible Pumps

Order by Model Number Example: 24200R3

**24**

**Pump Model**  
4" Submersible  
Stainless Steel  
Pumps are **Model 24**

**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  
(Leave blank  
for pump  
end only)

**Other**

Leave blank for 230V  
60 HZ, Single Phase (Standard)  
A - 115V Single Phase  
C - 200V Three Phase  
Z - 230V Three Phase  
Q - 380V Three Phase  
Y - 460V Three Phase

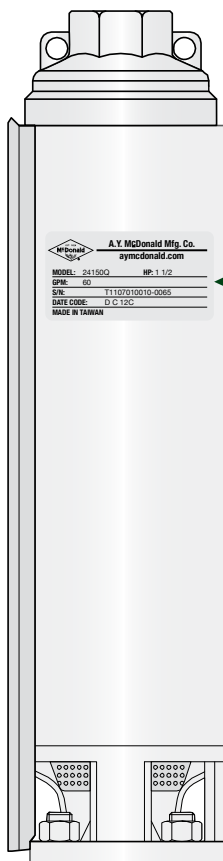
**Model 24200R3 is a 2 HP, three wire, 230 volt, single phase stainless steel 4" high flow submersible pump, designed to pump in the 35 GPM range.**

**Other Options - Contact Factory**

M - 575V Three Phase  
E - 220V 50HZ Single Phase  
F - 220V 50HZ Three Phase  
H - 380V 50HZ Three Phase  
N - 415V 50HZ Three Phase

**NOTES**

- Standard is 230V, single phase, 60 HZ (no suffix letter required)
- Three-wire single phase models include pump, motor, 48" leads, or 100" leads for 3 HP & larger, control box and check valve.
- Two-wire single phase models include pump, motor, 48" leads and check valves.
- Three-wire three phase models include pump, motor, 48" leads, 100" leads for 3 HP & larger, contactor, and check valve.
- All submersible pumps include grounded leads.



## 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
- HP
- Series
- Date of Manufacture

**MATERIALS OF CONSTRUCTION**

<b>Discharge Head</b>	Stainless Steel 304, discharge 2" from 35 GPM to 80 GPM series
<b>Motor Adapter</b>	Stainless Steel 304, NEMA standard
<b>Check Valve</b>	Stainless Steel 304
<b>External Sleeve</b>	Stainless Steel 304 polished
<b>Impellers</b>	Floating type impellers in Noryl
<b>Diffusers</b>	Polycarbonate
<b>Bearing</b>	Polyacetal
<b>Shaft Coupling</b>	Stainless Steel 304
<b>Strainer</b>	Stainless Steel 304
<b>Shaft</b>	Stainless Steel 304
<b>Cable Guard</b>	Stainless Steel 304

# R Series - 35 GPM

All R series 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.

## Models Available

### Two Wire Single Phase

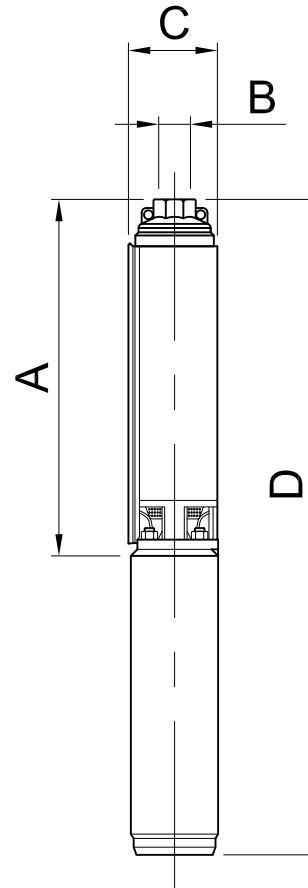
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24100R2	1	6	230	14.1"	2"	3.9"	29.1"	38
24150R2	1 1/2	8	230	16.6"	2"	3.9"	32.5"	40

### 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

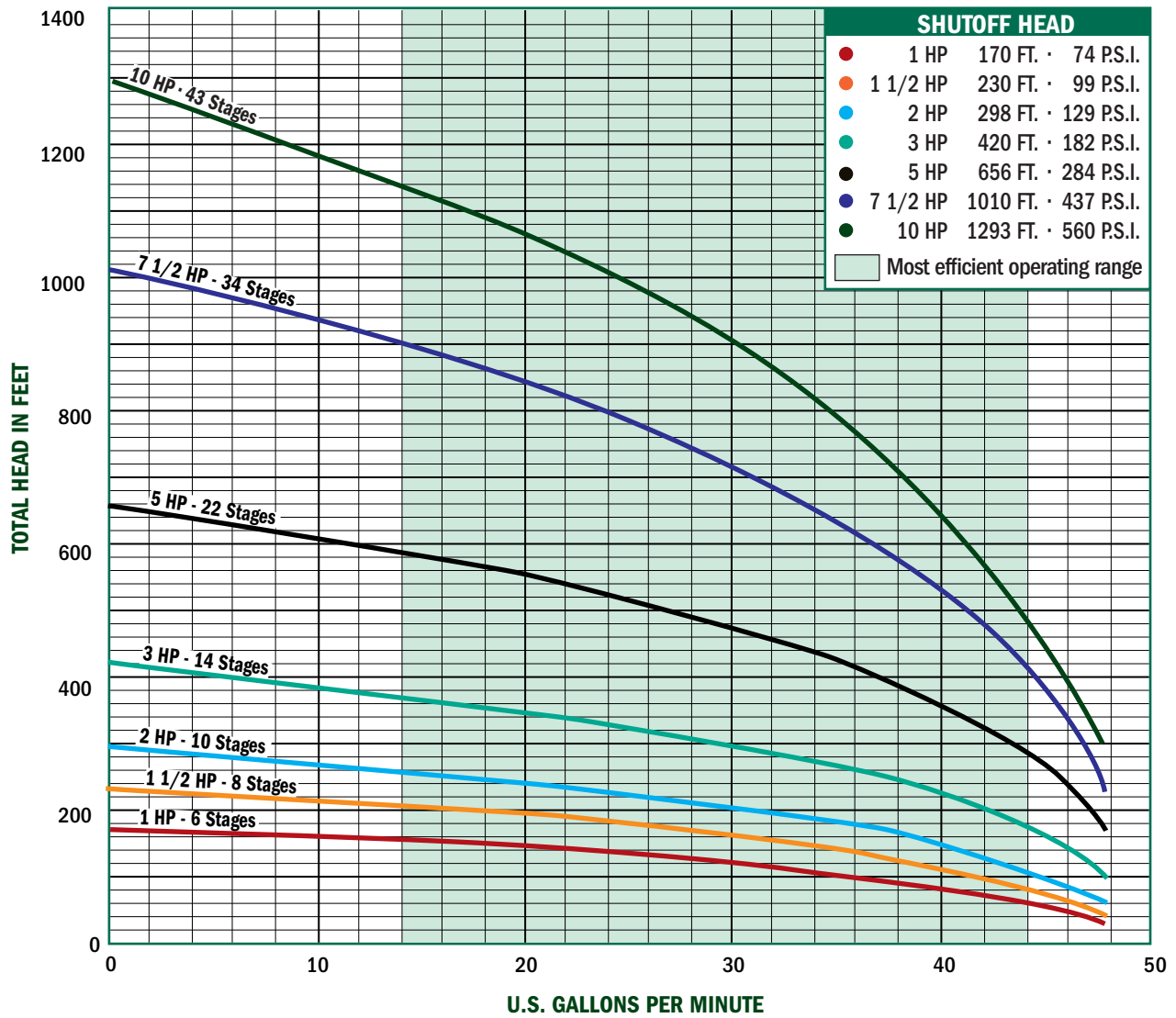
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150R3Z	1 1/2	6	230	16.6"	2"	3.9"	31.5"	42
24150R3Y	1 1/2	6	460	16.6"	2"	3.9"	31.5"	37
24200R3Z	2	8	230	19.0"	2"	3.9"	35.0"	62
24200R3Y	2	8	460	19.0"	2"	3.9"	35.0"	48
24300R3Z	3	14	230	23.9"	2"	3.9"	41.2"	60
24300R3Y	3	14	460	23.9"	2"	3.9"	41.2"	54
24500R3Z	5	22	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
24100R3Y	10	43	460	51.9"	2"	3.9"	82.7"	159



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

<b>1 HP</b>	PSI	20'	40'	60'	80'	100'	120'	140'								
	0			43	39	34	27.5	17.5								
	30	38	32	24	15	19										
<b>1 1/2 HP</b>	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								
<b>2 HP</b>	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						
<b>3 HP</b>	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				

# R Series - 35 GPM



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					



# G Series - 40 GPM

All G series 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.

## Models Available

### Two Wire Single Phase

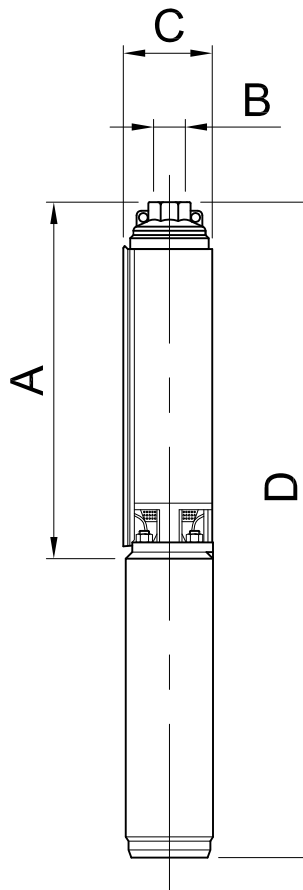
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G2	1 1/2	5	230	12.8"	2"	3.9"	28.7"	37

### 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

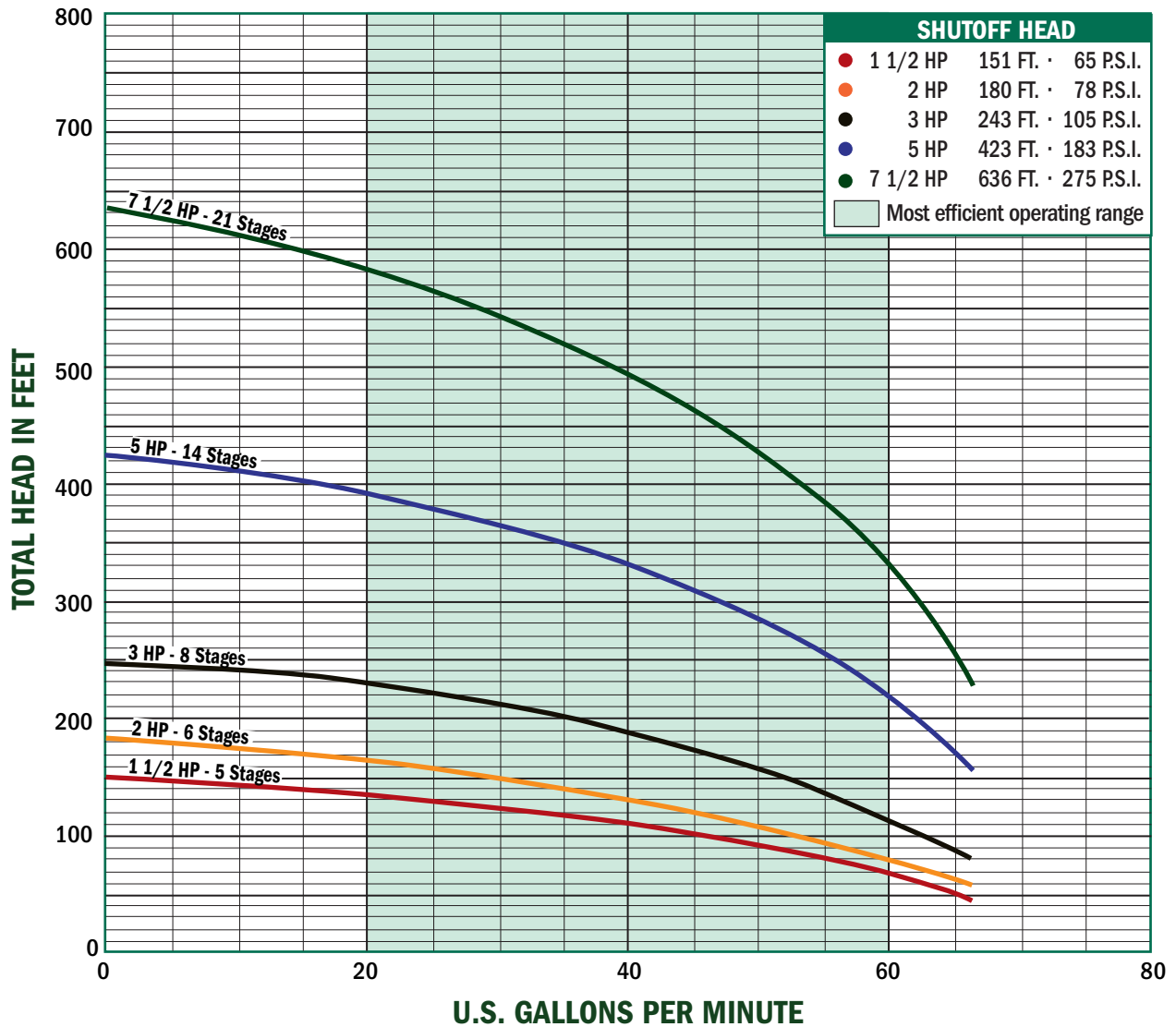
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G3Z	1 1/2	5	230	12.8"	2"	3.9"	27.8"	47
24150G3Y	1 1/2	5	460	12.8"	2"	3.9"	27.8"	40
24200G3Z	2	6	230	14.0"	2"	3.9"	30.0"	47
24200G3Y	2	6	460	14.0"	2"	3.9"	30.0"	46
24300G3Z	3	8	230	16.5"	2"	3.9"	33.8"	60
24300G3Y	3	8	460	16.5"	2"	3.9"	33.8"	51
24500G3Z	5	14	230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



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

HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'			
1 1/2 HP	0					63	57	54	50	45	40	31	22			
	30			40	31	22	12									
	50	17	12													
2 HP	0					63	58	56	53	43	34	22				
	30			44	38	34	28	22	12							
	50	32	27	17.5	12											
3 HP	0					63	58	56	53	43	34	22				
	30			44	38	34	28	22	12							
	50	32	27	17.5	12											
5 HP	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	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			

# G Series - 40 GPM



# S Series - 55 GPM

All S series 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.

## Models Available

### Two Wire Single Phase

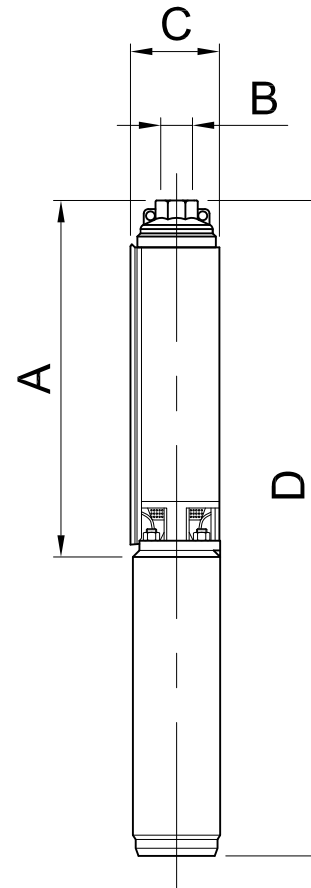
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150S2	1 1/2	5	230	17.0"	2"	3.9"	33.0"	40

### 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
241000S3Y	10	29	460	67.2"	2"	3.9"	98.1"	106

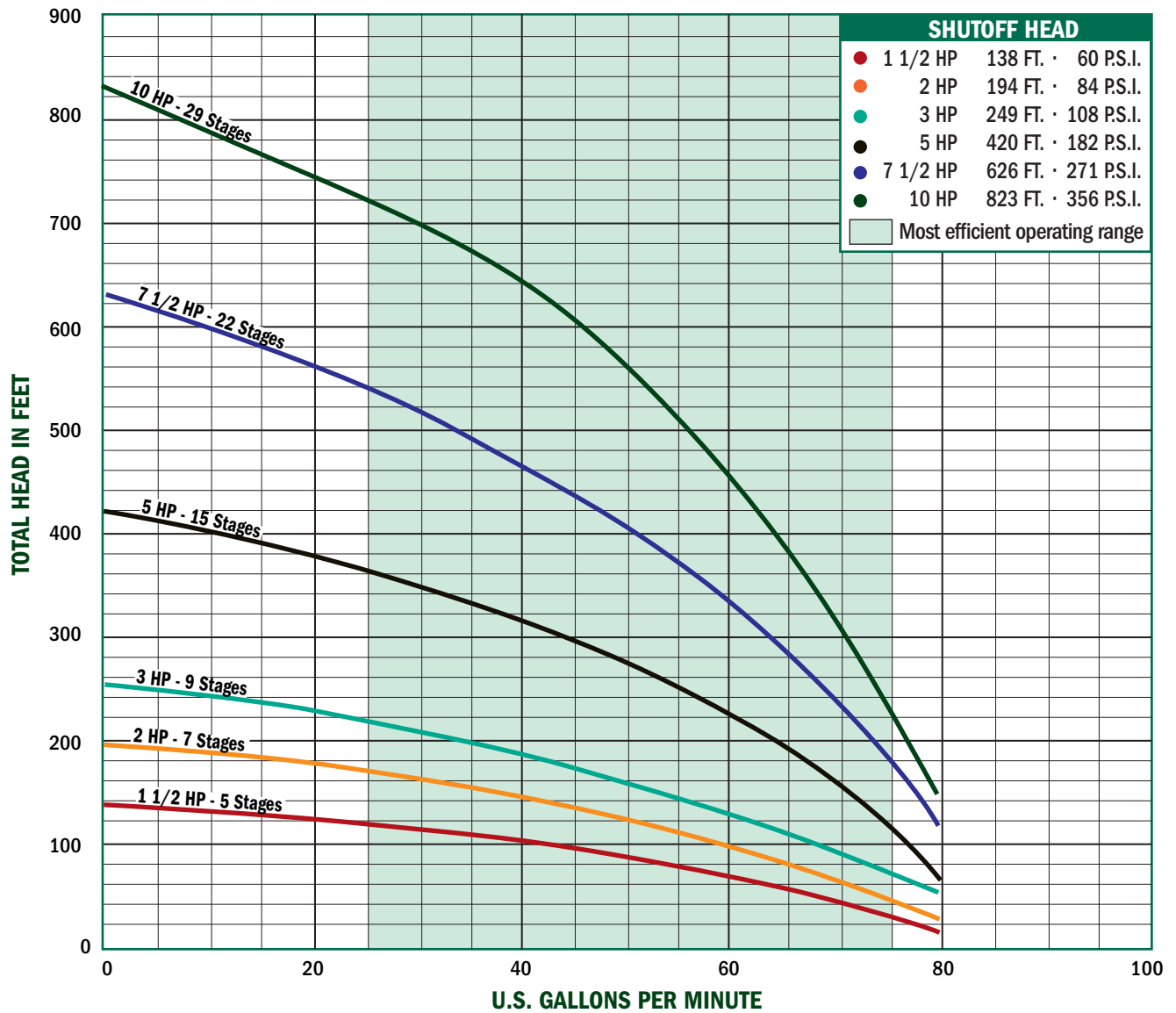


## Output - in Gallons Per Minute (Depth to Water)

HP	PSI	Depth (ft)																						
		20'	30'	40'	50'	60'	70'	80'	90'	100'	120'													
1 1/2	0			72.5	67.5	65	60	52.5	45	42.5	20													
	30	47.5	42.5	32.5	20																			
	50																							
2	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	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													
5	0	40'	60'	80'	100'	120'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'						
	30				77	75	70	67	65	61	58	53	49	44	38	33	26	18						
	50	71	68	65	62	58	51	46	41	35	30	22												
7 1/2	0	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'					
	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	0	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'	
	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					



# S Series - 55 GPM



# Q Series - 60 GPM

All Q series 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.

## Models Available

### Two Wire Single Phase

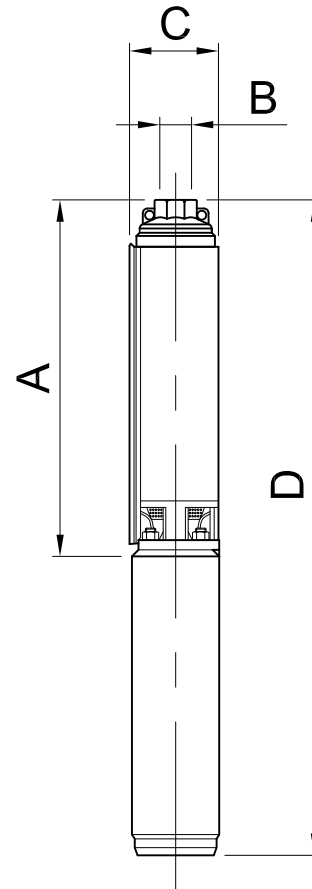
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q2	1 1/2	4	230	14.9"	2"	3.9"	30.8"	40

### 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

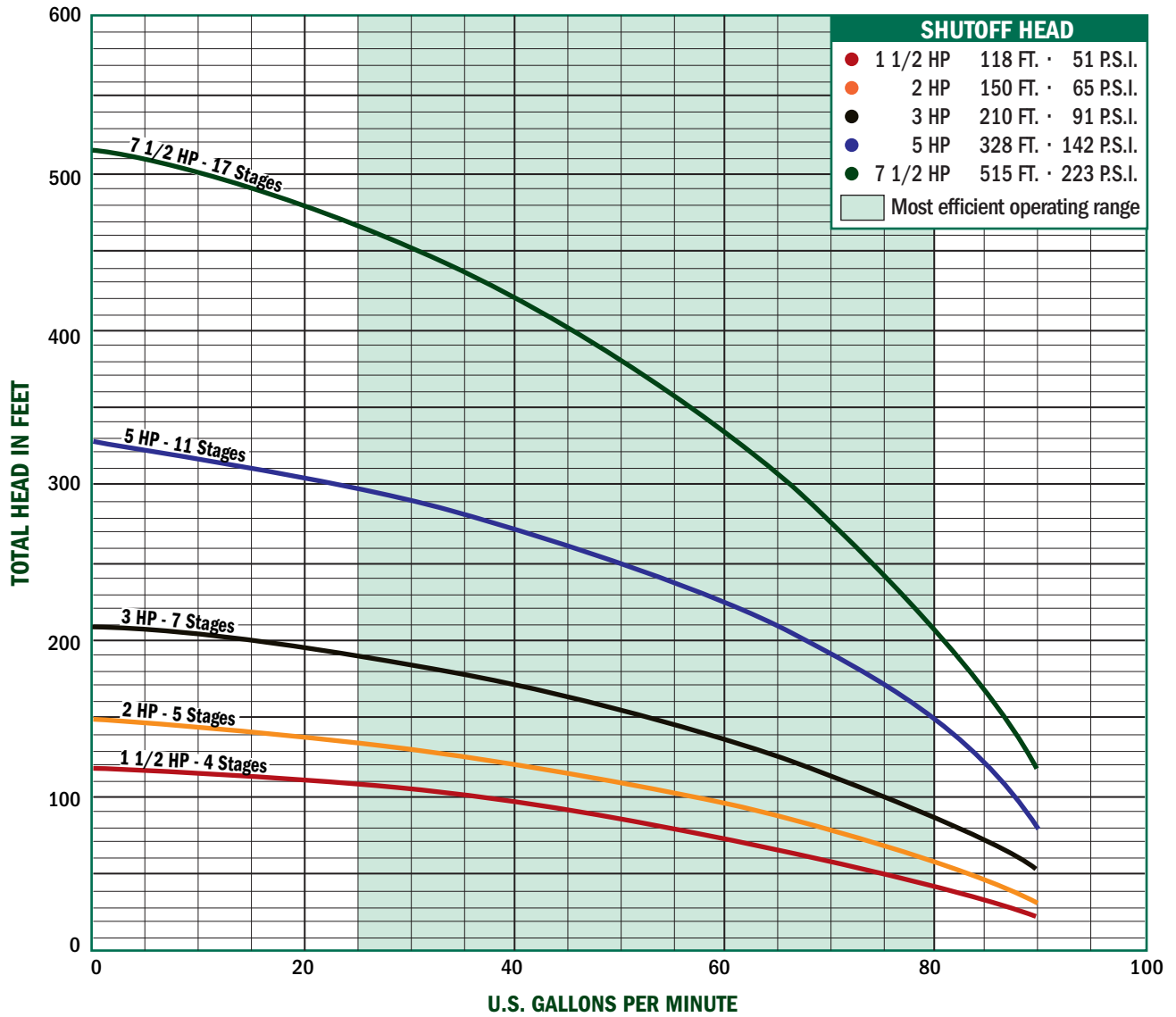
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q3Z	1 1/2	4	230	14.9"	2"	3.9"	29.8"	38
24150Q3Y	1 1/2	4	460	14.9"	2"	3.9"	29.8"	38
24200Q3Z	2	5	230	16.9"	2"	3.9"	32.9"	44
24200Q3Y	2	5	460	16.9"	2"	3.9"	32.9"	44
24300Q3Z	3	7	230	21.0"	2"	3.9"	38.3"	51
24300Q3Y	3	7	460	21.0"	2"	3.9"	38.3"	51
24500Q3Z	5	11	230	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



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

<b>1 1/2 HP</b>	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													
<b>2 HP</b>	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											
<b>3 HP</b>	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								
<b>5 HP</b>	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						
<b>7 1/2 HP</b>	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				

# Q Series - 60 GPM



# T Series - 80 GPM

All T series 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.

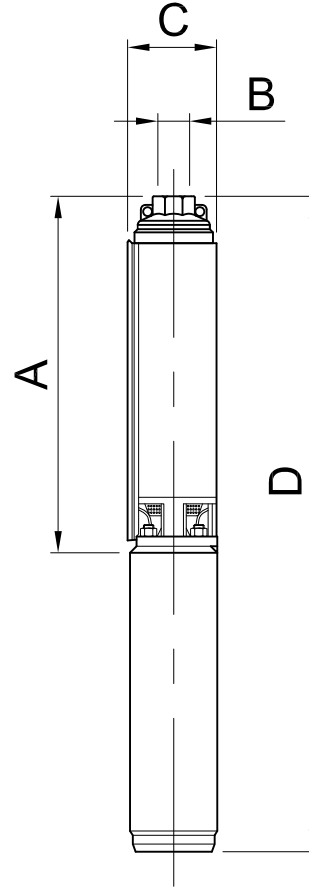
## Models Available

### 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

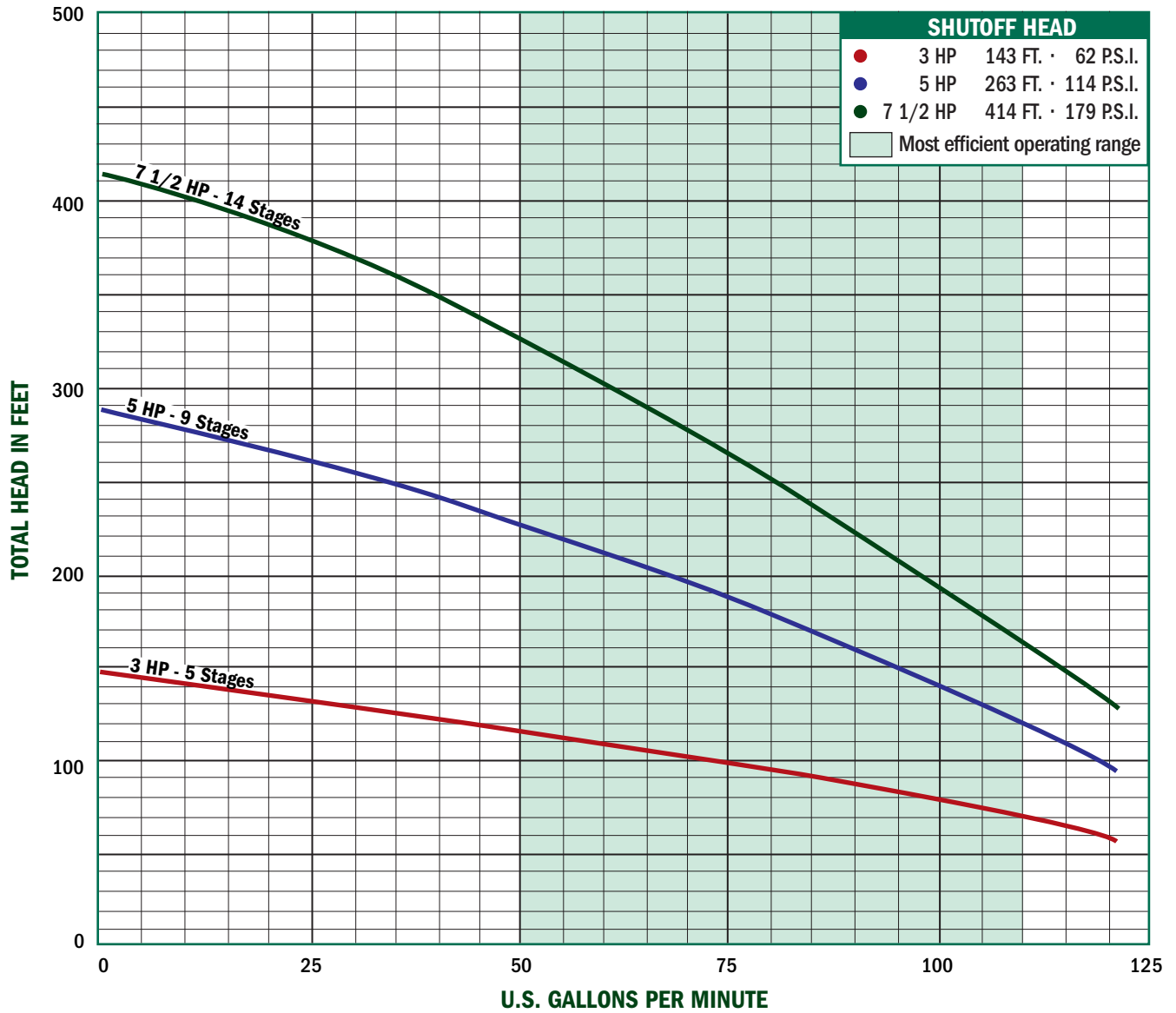
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24300T3Z	3	5	230	18.6"	2"	3.9"	35.9"	49
24300T3Y	3	5	460	18.6"	2"	3.9"	35.9"	49
24500T3Z	5	9	230	29.3"	2"	3.9"	56.1"	71
24500T3Y	5	9	460	29.3"	2"	3.9"	56.1"	69
24750T3Z	7 1/2	14	230	42.6"	2"	3.9"	69.4"	93
24750T3Y	7 1/2	14	460	42.6"	2"	3.9"	69.4"	91



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

<b>3 HP</b>	PSI	60'	70'	80'	90'	100'	120'								
	0			100	85	73	43								
	30	100	58												
<b>5 HP</b>	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'				
	0					95	83	72	59	45	27				
	30			76	65	51	35	20							
<b>7 1/2 HP</b>	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						

# T Series - 80 GPM





## 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)

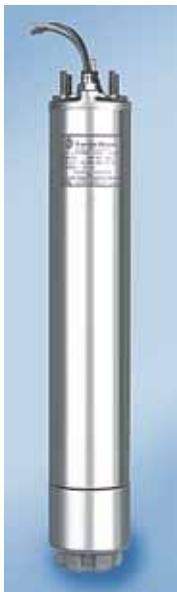
HP	KW	Downward Thrust Lbs	Volts	Service Factor	Franklin Model No.	Franklin Control Box	A.Y. McDonald Model No.	A.Y. McDonald Control Box
3	2.2	900	230	1.15	224 302 26	282 302 83	3129-363	6617-142
3	2.2	1500	230	1.15	224 302 86	282 302 83	3129-880	6617-142
5	3.7	1500	230	1.15	224 303 86	282 113 93	3129-717	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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald 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. M <sup>o</sup> Donald Model No.
1/2-5	230	60	580 006 0100	6617-143

## Subdrive 75

- For Indoor use.
- For use in residential or light commercial applications with McDonald 3/4 HP pump end mounted to a 1 1/2 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1 1/2	230	60	587 020 338 0	6617-147	Nema 1

## Subdrive 75

- For Outdoor use.
- For use in residential or light commercial applications with a McDonald 3/4 HP pump end mounted to a 1 1/2 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1 1/2	230	60	587 020 338 4	6617-156	Nema 4

## Subdrive 100

- For Indoor use.
- For use in residential or light commercial applications with a McDonald 1 HP pump end mounted to a 2 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
2	230	60	587 020 410 0	6617-157	Nema 1

## Subdrive 100

- For Outdoor use.
- For use in residential or light commercial applications with a McDonald 1 HP pump end mounted to a 2 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
2	230	60	587 020 410 4	6617-158	Nema 4

## Subdrive 150

- For Indoor use.
- For use in residential or light commercial applications with a McDonald 1 1/2 HP pump end mounted to a 3 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
3	230	60	587 020 415 0	6617-148	Nema 1

## Subdrive 150

- For Outdoor use.
- For use in residential or light commercial applications with a McDonald 1 1/2 HP pump end mounted to a 3 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
3	230	60	587 020 415 4	6617-155	Nema 4

## Subdrive 300

- For use with McDonald 3 HP pump end mounted to a 5 HP Franklin Electric three phase motor.



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
5	230	60	587 020 630 0	6617-153	Nema 4

## SubDrive 2W

- For Indoor use.
- For use with existing 1/2, 3/4, & 1 HP
- \* Single Phase System, Two Wire Franklin Electric Motor



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1/2 - 1	230	60	587 020 322 3	6617-164	Nema 3R

## Monodrive

- For Indoor use.
- For use with existing 1/2, 3/4 & 1 HP
- \* Single Phase System, Three Wire Franklin Electric Motor



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1/2 - 1	230	60	587 020 311 0	6617-151	Nema 1

## Monodrive

- For Outdoor use.
- For use with existing 1/2, 3/4 & 1 HP
- \* Single Phase System, Three Wire Franklin Electric Motor



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1/2 - 1	230	60	587 020 311 4	6617-159	Nema 4

## Monodrive XT

- For Indoor use.
- For use with existing 1 1/2 & 2 HP
- \* Single Phase System, Three Wire Franklin Electric Motor



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1 1/2 & 2	230	60	587 020 411 0	6617-154	Nema 1

## Monodrive XT

- For Outdoor use.
- For use with existing 1 1/2 & 2 HP
- \* Single Phase System, Three Wire Franklin Electric Motor



### Built-in protection and diagnostics:

- Surge protection - Underload - Undervoltage
- Locked pump - Open circuit - Short circuit
- Overheated controller

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.	Nema Rating
1 1/2 & 2	230	60	587 020 411 4	6617-160	Nema 4

## Contactors

IEC Contactors for three phase motors

Each kit includes Nema 1 enclosure, contactor, and overload assembled with the correct voltage coil needed.



### CONTACTORS WITH 200V COIL

A.Y. McDonald Part No.	HP	Volts
3131-290	1/2	200
3131-291	3/4	200
3131-292	1	200
3131-293	1 1/2	200
3131-294	2	200
3131-295	3	200
3131-296	5	200
3131-297	7 1/2	200
3131-298	10	200
3131-299	15	200
3131-300	20	200
3131-301	25	200
3131-302	30	200

### CONTACTORS WITH 230V COIL

A.Y. McDonald Part No.	HP	Volts
3131-303	1/2	230
3131-304	3/4	230
3131-305	1	230
3131-306	1 1/2	230
3131-307	2	230
3131-308	3	230
3131-309	5	230
3131-310	7 1/2	230
3131-311	10	230
3131-312	15	230
3131-313	20	230
3131-314	25	230
3131-315	30	230

### CONTACTORS WITH 460V COIL

A.Y. McDonald Part No.	HP	Volts
3131-316	1/2	460
3131-317	3/4	460
3131-318	1	460
3131-319	1 1/2	460
3131-320	2	460
3131-321	3	460
3131-322	5	460
3131-323	7 1/2	460
3131-324	10	460
3131-325	15	460
3131-326	20	460
3131-327	25	460
3131-328	30	460
3131-329	40	460
3131-330	50	460
3131-331	60	460
3131-332	75	460

## 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"



### 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"



### 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"

### 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



### No-Lead Brass Tank Tees

Solid no-lead brass construction.

**72044** - Tank Tee, One hole  
1" x 11", 1" x 14", & 1 1/4" x 14"

**72045** - Tank Tee, Two hole  
1" x 11", 1" x 14", 1 1/4" x 12"  
1 1/4" x 14", & 1 1/4" x 16"



1/2" - 1 1/4"



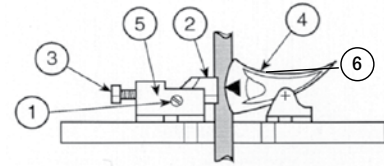
1 1/2" - 2"

# Pump Accessories

## 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

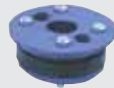
- 1 - 3117-612 Set screw 1/2-13 x 3/4
- 2 - 6814-236 Adjusting slide
- 3 - 3117-611 Adjusting screw
- 4 - 6814-235 Pipe holder dog
- 5 - 6814-234 Body Casting
- 6 - 6814-237 Pin
- 7 - 6814-238 Wood Base

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

### 3129-404 Pressure Gauge

0-100 lbs. - 2" Dial - MPT. 1/4" 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.

# 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
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
"GSG" heavier duty switches are rated to 3 HP 230 V. Single phase and 5 HP 230 V. Three phase plus DC to 1 HP. They require use of deluxe control boxes on submersible pumps above 3 HP single phase.			
3129-430	1/4"	20-40	(9013GSG2J20)
3129-435	1/4"	30-50	(9013GSG2J21)
3129-434	1/4"	40-60	(9013GSG2J24)



### 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	







A.Y. McDonald Mfg. Co. is a leading manufacturer of Waterworks 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.

