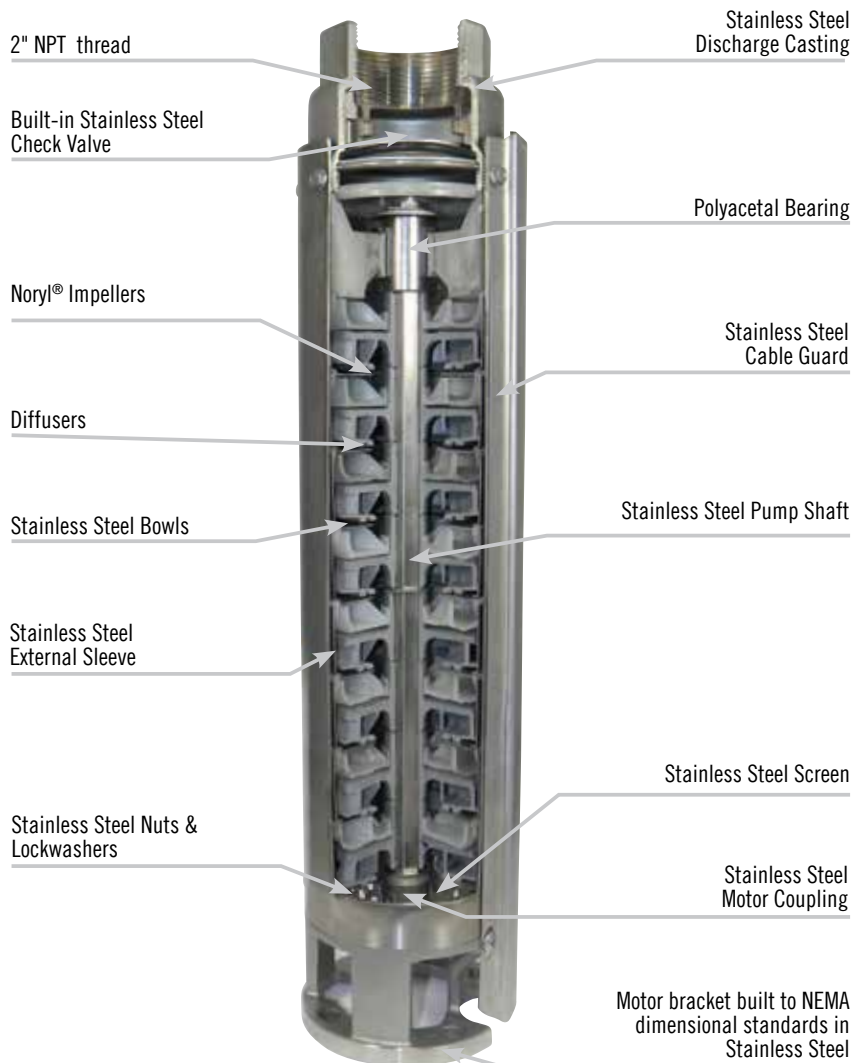


24000 Series High Flow

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	200	R	3		
Pump Model Stainless Steel	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	Series R Series - 35 GPM G Series - 40 GPM S Series - 55 GPM Q Series - 60 GPM T Series - 80 GPM	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

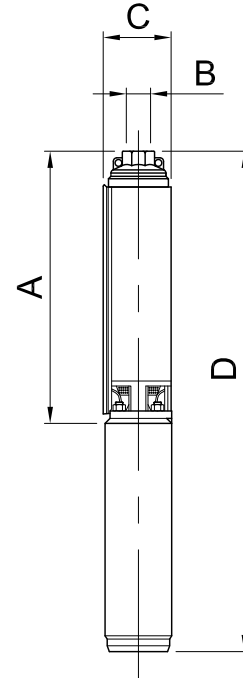
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24100R2	1	6	230	14.1"	2"	3.9"	29.1"	38
24150R2	1 1/2	8	230	16.6"	2"	3.9"	32.5"	40

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					

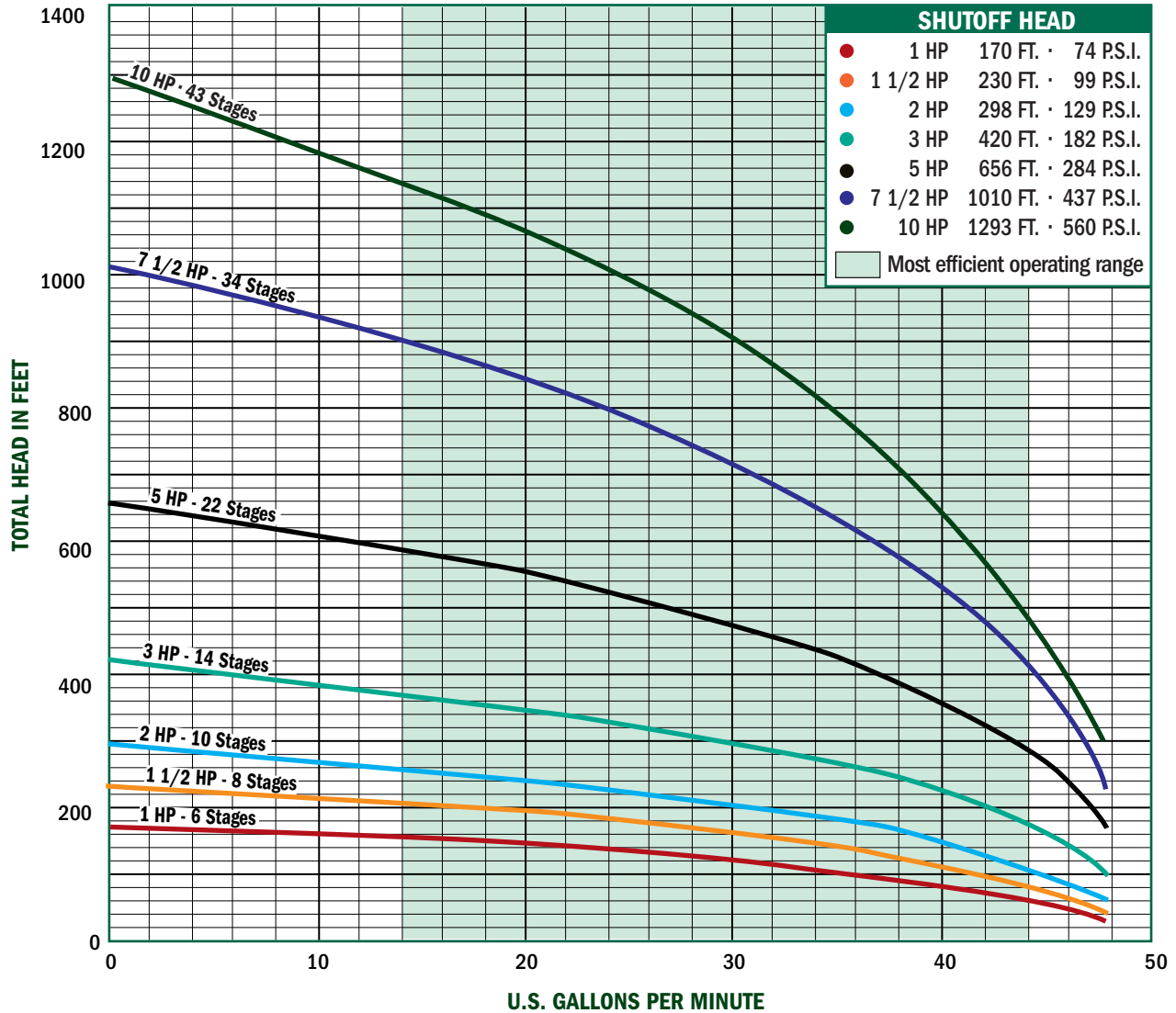
1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'
	0				44	42	38	34	30	24	16
	30		40	37	28	25	22	10			
	50	37	28	25	20	8					

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				

FRICITION 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				

FRICITION 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

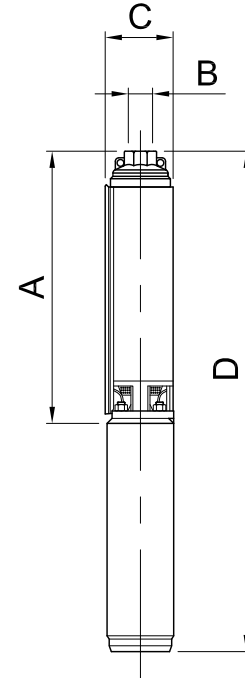
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150G2	1 1/2	5	230	12.8"	2"	3.9"	28.7"	37

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)

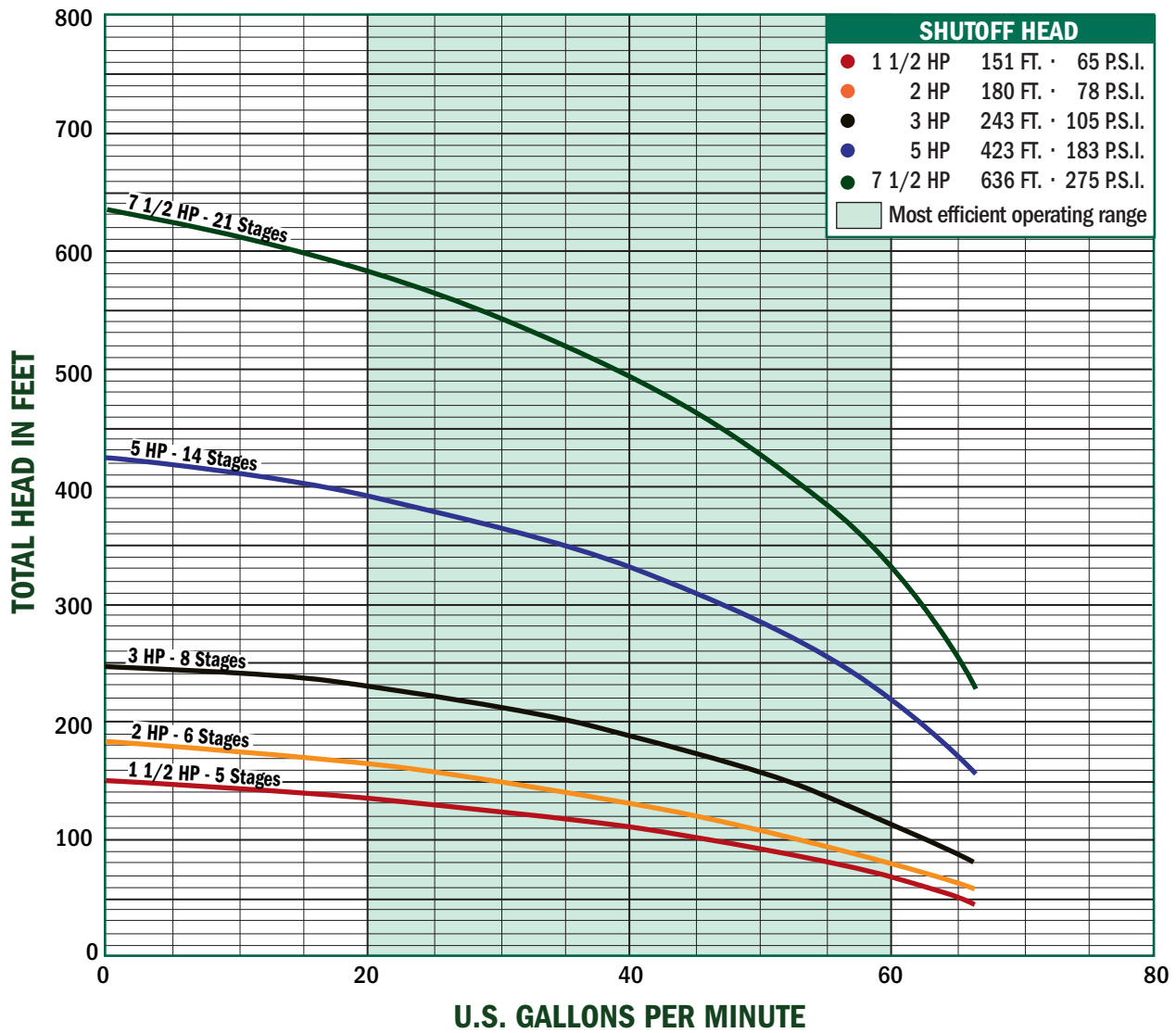
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'
	0				65	63	57	54	50	45	32	15
	30			40	31	22	12					
	50	17	12									

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					

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

G Series - 40 GPM



Submersible Pumps

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				

FRICITION 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

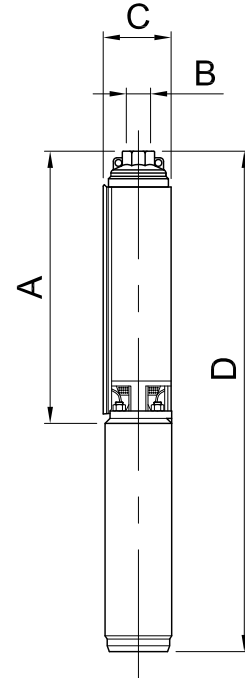
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150S2	1 1/2	5	230	17.0"	2"	3.9"	33.0"	40

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
241000S3Y	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)

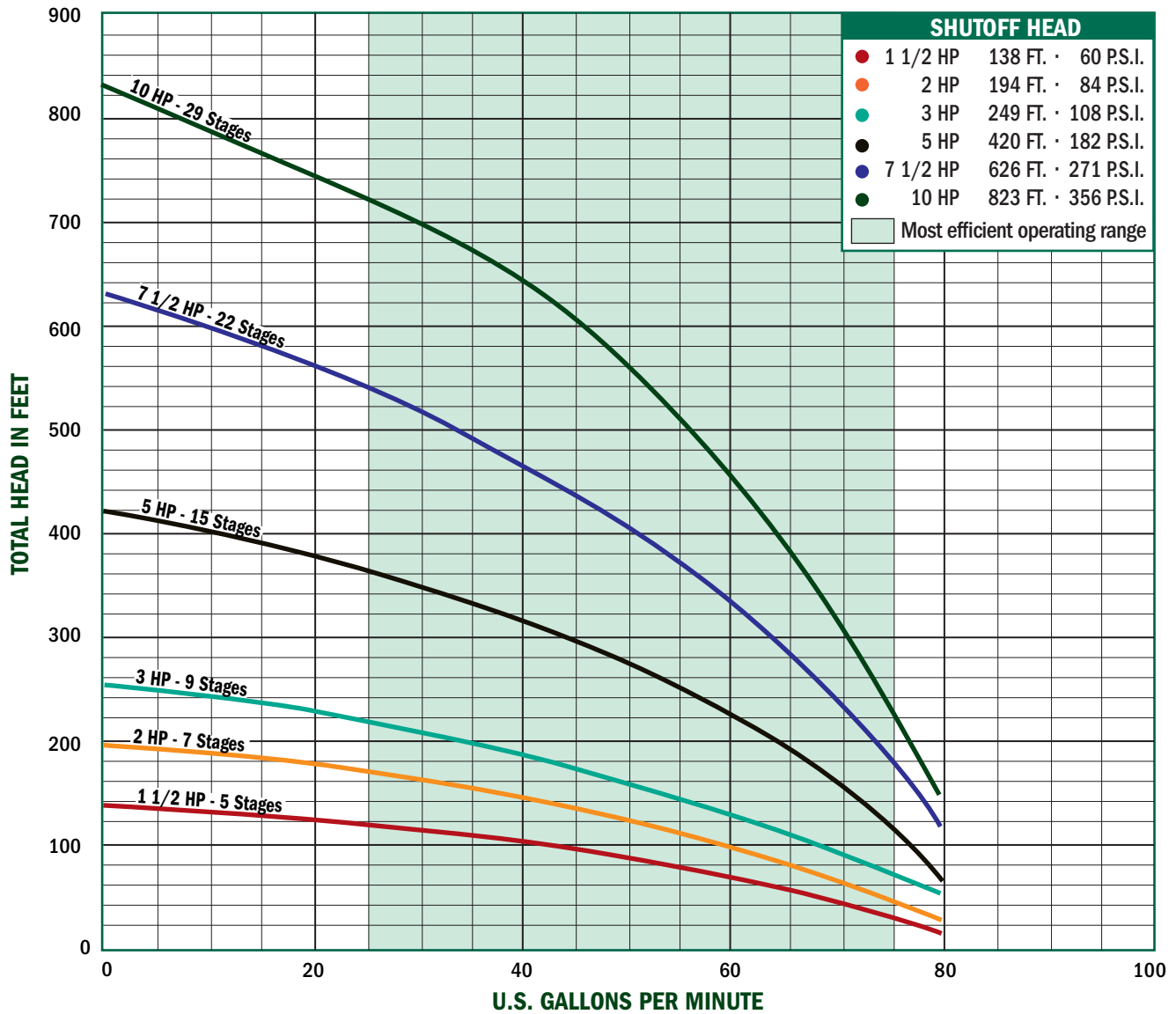
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'
	0			72.5	67.5	65	60	52.5	45	42.5	20
	30	47.5	42.5	32.5	20						

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				

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			

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

S Series - 55 GPM



Submersible Pumps

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

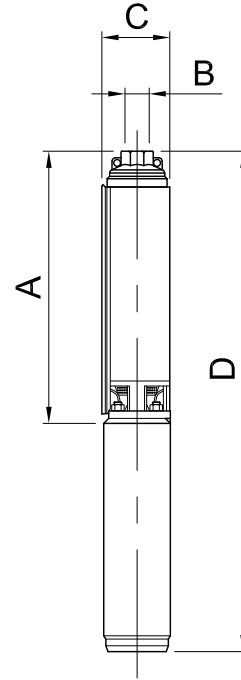
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24150Q2	1 1/2	4	230	14.9"	2"	3.9"	30.8"	40

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)

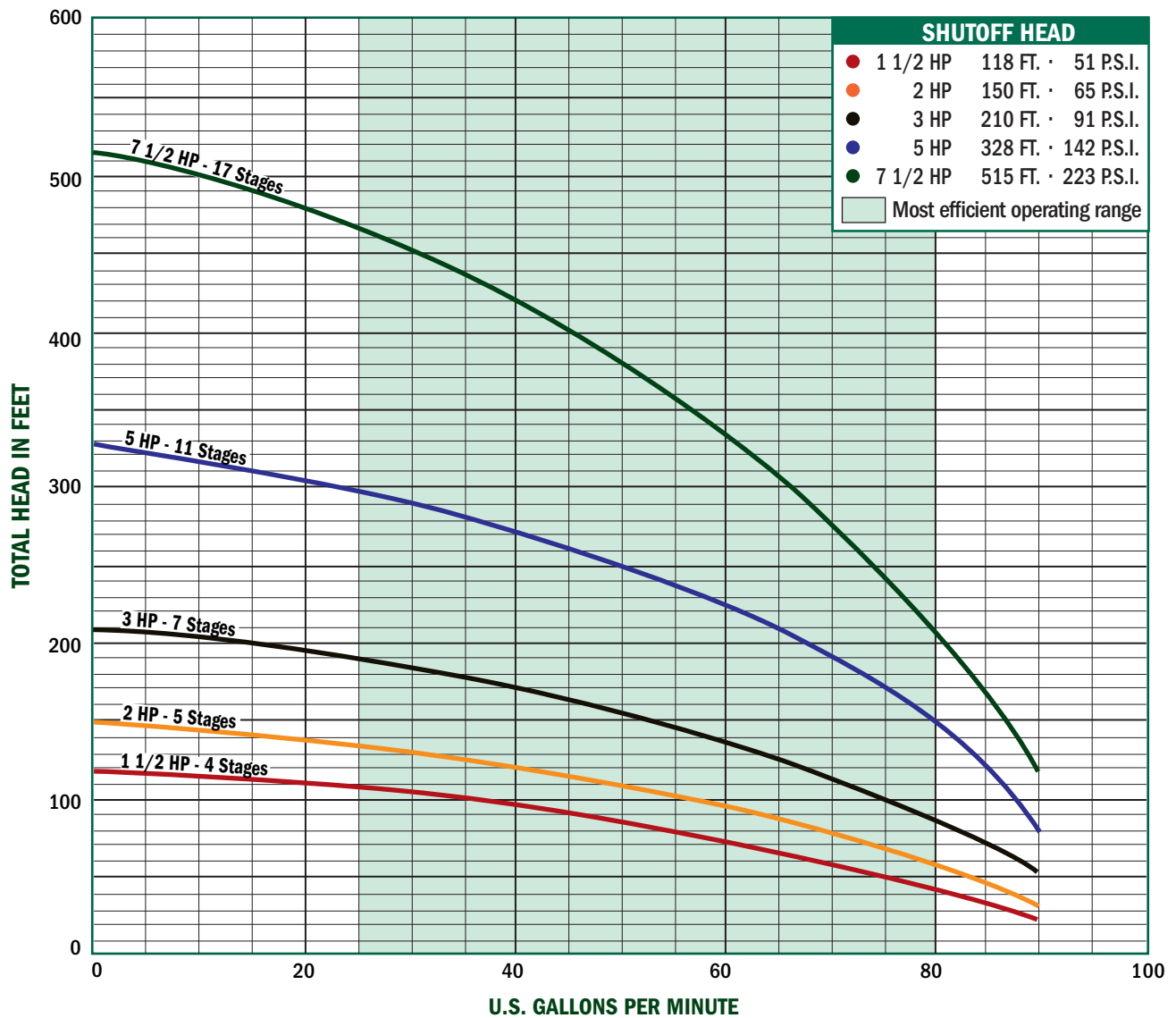
1 1/2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
	0			85	79	74	67	61	53	44	35
	30	53	44	35	18						

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				

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				

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					

FRICITION 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

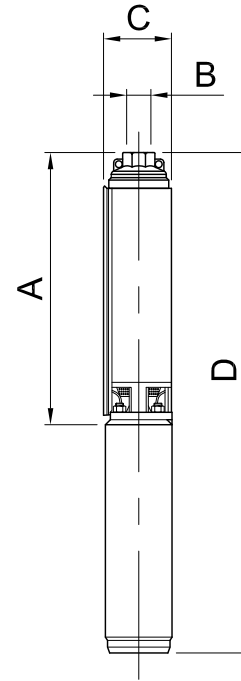
Model No.	HP	Stages	Volt	A	B	C	D	Wt.
24300T3	3	5	230	18.6"	2"	3.9"	38.1"	58
24500T3	5	9	230	29.3"	2"	3.9"	56.1"	92

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



Submersible Pumps

Output - in Gallons Per Minute (Depth to Water)

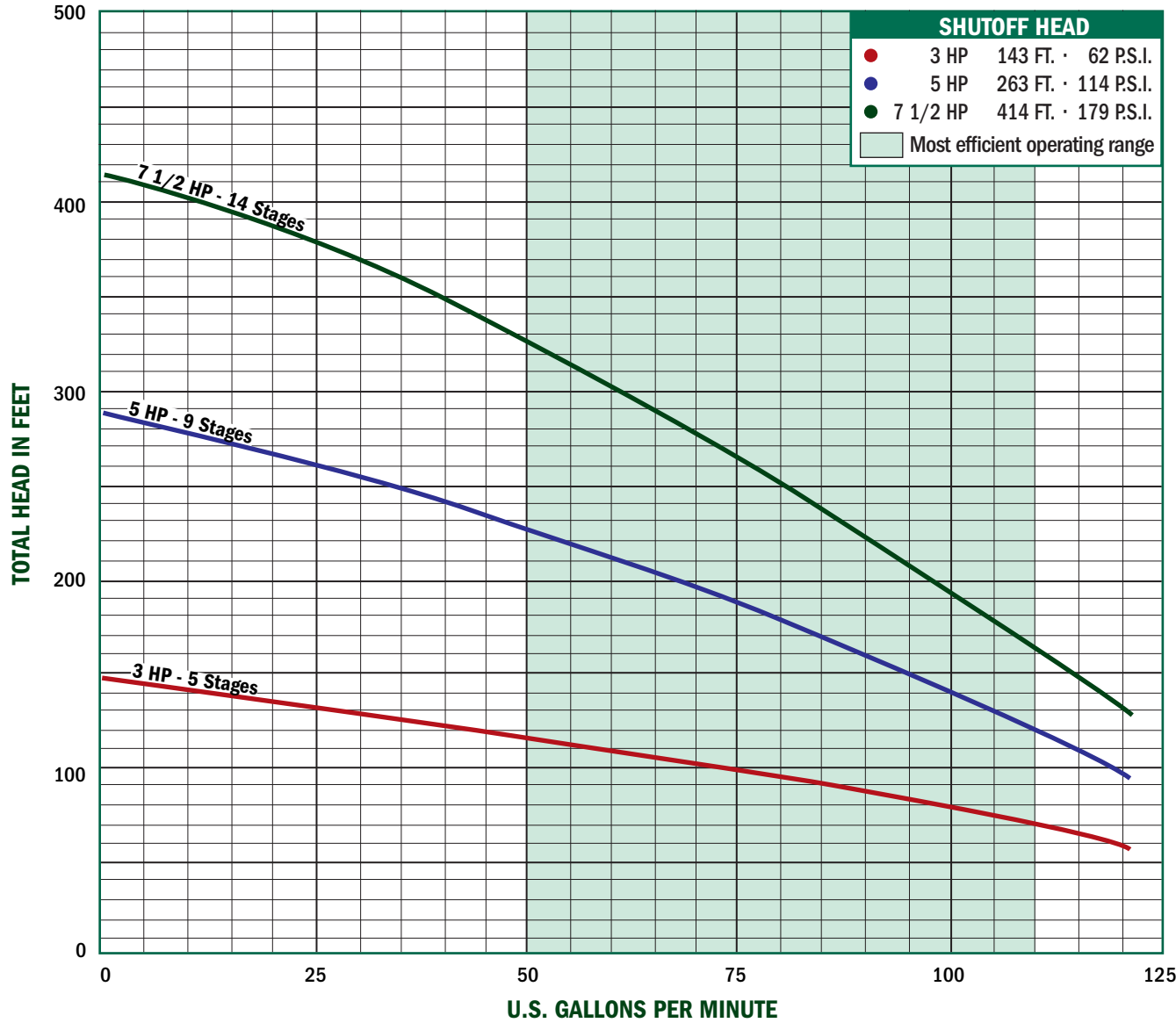
3 HP	PSI	60'	70'	80'	90'	100'	120'
	0			100	85	73	43
	30	100	58				
	50						

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						

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

T Series - 80 GPM



Submersible Pumps