

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

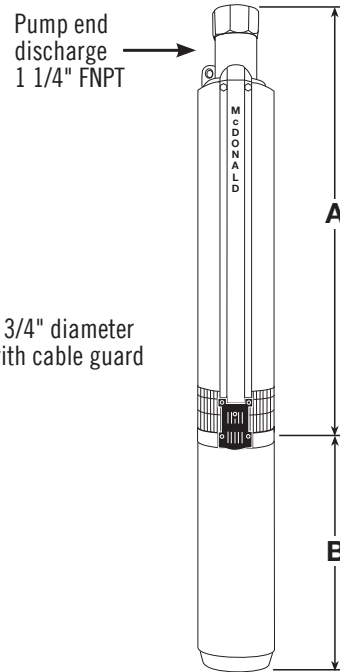
Model No.	HP	Stages	Volt	A	B	WT.
21050P2A	1/2	5	115	13.52"	9.53"	26
21050P2	1/2	5	230	13.52"	9.53"	26
21075P2	3/4	7	230	15.67"	10.66"	30
21100P2	1	9	230	17.82"	11.75"	34
21150P2	1 1/2	12	230	21.04"	15.12"	44

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				

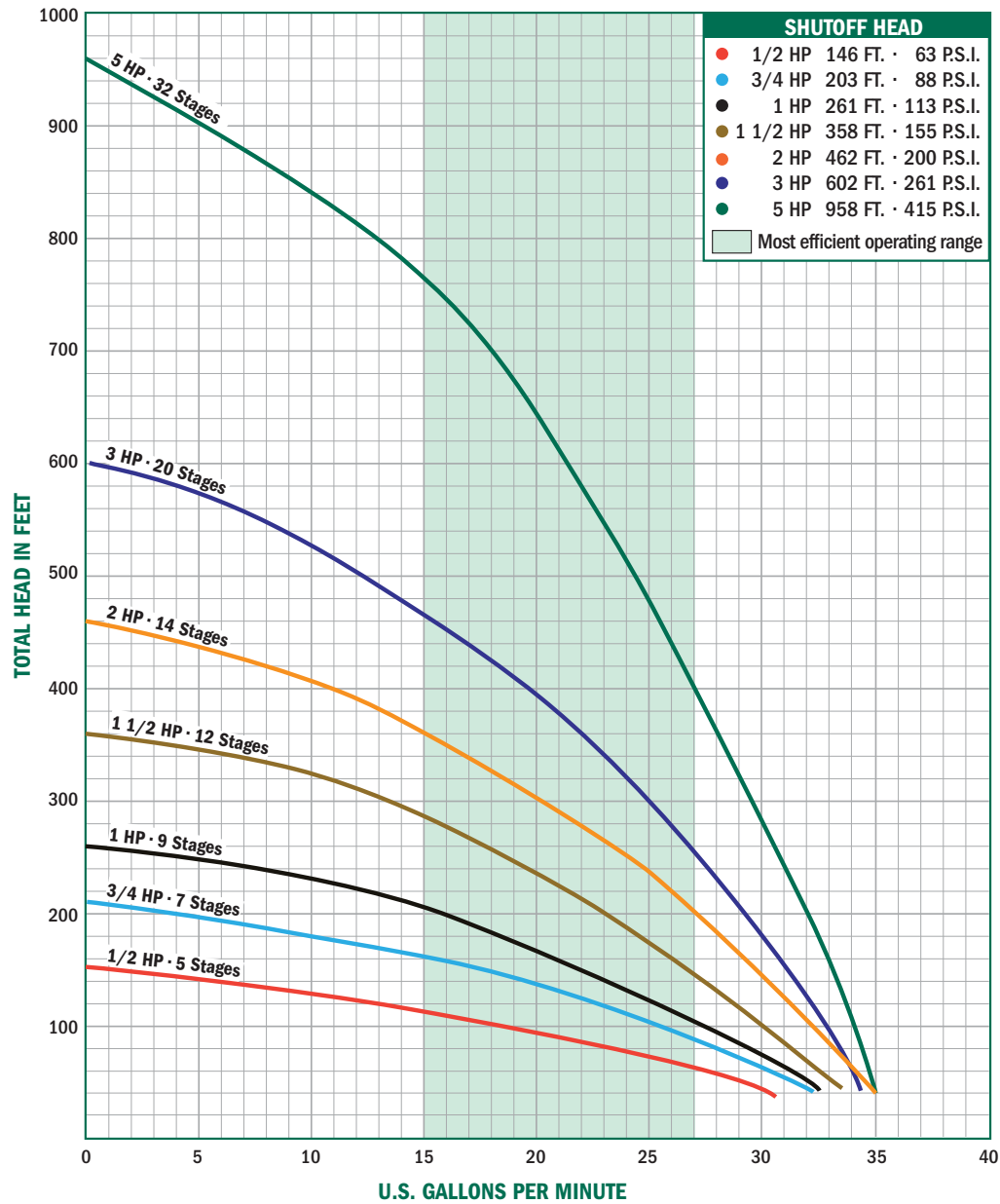
3/4 HP	PSI	25'	50'	75'	100'	125'	150'	175'	200'
	0	32.36	29.82	27.06	24.01	20.58	16.54	11.39	2.53
	30	24.74	21.40	17.53	12.71	5.44			
	40	21.67	17.85	13.13	6.20				
	50	18.16	13.54	6.91					
	60	13.93	7.56						

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				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

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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			

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

5 HP	PSI	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	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				