



# AQUAVAR ProPak

30-80 HZ KITS

### FEATURES

Simple, fast sizing and installation.

Range curves and selection charts generated from actual R&D tests.

Kits configured for 30 Hz minimum and 80 Hz maximum operation.

Kits use matched water end and motor (see component chart).

Wiring is as easy as standard three-wire control box:

- L1, L2 and Ground in from power supply
- Red, Yellow, Black and Ground out to motor

Pressure is factory preset at 60 psi with simple, fast, field adjustability for higher pressures.

Three phase output to motor reduces wire cost.

Goulds Water Technology model GS features the Guardian bearing system and field proven sand and abrasive handling floating stack design.

Switch Input for connecting a pressure switch or float switch.

Grounding provisions for transducer and transducer cable.

### KITS INCLUDE:

- CentriPro Three Phase Motor 1.5 - 5 HP, 230 V
- CentriPro Aquavar SOLO<sup>2</sup> Controller with Transducer
- Goulds Water Technology GS Water End (pump)

**ProPak kits do not include pressure tanks, order tanks separately.**

### PROPAK PERFORMANCE RANGE AND COMPONENTS

MODEL	HP	Shut-Off Head (ft)	at Best Efficiency		at Maximum Runout		WE	Motor	Controller
			Flow (GPM)	TDH (ft)	Flow (GPM)	TDH (ft)			
7GP0715	1.5	665	7	480	16	110	7GS07	M15432	3AS20
10GP0715	1.5	540	10	375	20	117	10GS07		
18GP0715	1.5	315	18	237	37	55	18GS07		
7GP1020	2	880	7	640	16	146	7GS10	M20432	
10GP1020	2	660	10	480	20	160	10GS10		
18GP1020	2	428	18	306	37	70	18GS10		
25GP1020	2	358	25	238	40	69	25GS10		
7GP1530	3	1140	7	820	16	175	7GS15	M30432	3AS30
10GP1530	3	923	10	650	20	205	10GS15		
18GP1530	3	582	18	420	37	87	18GS15		
25GP1530	3	466	25	317	40	100	25GS15		
35GP1530	3	390	35	230	60	70	35GS15		
18GP3050	5	990	18	680	37	140	18GS30	M50432	3AS50
25GP3050	5	770	25	528	40	158	25GS30		
35GP3050	5	681	35	390	60	120	35GS30		

Order pressure tank separately, not included in kit

### AQUAVAR SOLO<sup>2</sup> CONTROLLER

New, more versatile user interface board

- Provides switch connection for optional pressure or level switch
- Current limit settings for all CentriPro motors
- Dry well sensitivity switch
- Low pressure cut-off protection
- 5 or 20 PSI pressure drop restart switch
- Transducer better protected from transient power surges

### PROPAK KIT DIMENSIONS AND WEIGHTS

Controller	Sh. Weight (lb)	Dimensions - All
3AS20	23	Height: 21"
3AS30	24	Width: 13"
3AS50	29	Depth: 8"

Pump	Sh. Weight (lb)	W. E. Length (in)
7GS07	8	16.0
10GS07	8	13.6
18GS07	7	11.8
7GS10	9	18.8
10GS10	9	15.0
18GS10	8	13.5
25GS10	8	13.4
7GS15	12	23.6
10GS15	12	18.4
18GS15	10	16.1
25GS15	9	15.3
33GS15	9	16.6
18GS30	15	24.1
25GS30	14	20.9
33GS30	13	24.0

Motors	Sh. Weight (lb)	Motor Length (in)	L x W x H (in)
M15432	23	11.7	19 x 4.1 x 4.1
M20432	28	13.8	20.5 x 6.5 x 6.5
M30432	32	15.3	20.5 x 6.5 x 6.5
M50432	55	21.7	27.5 x 6.5 x 6.5

#### ProPak Carton Dimensions and Weights

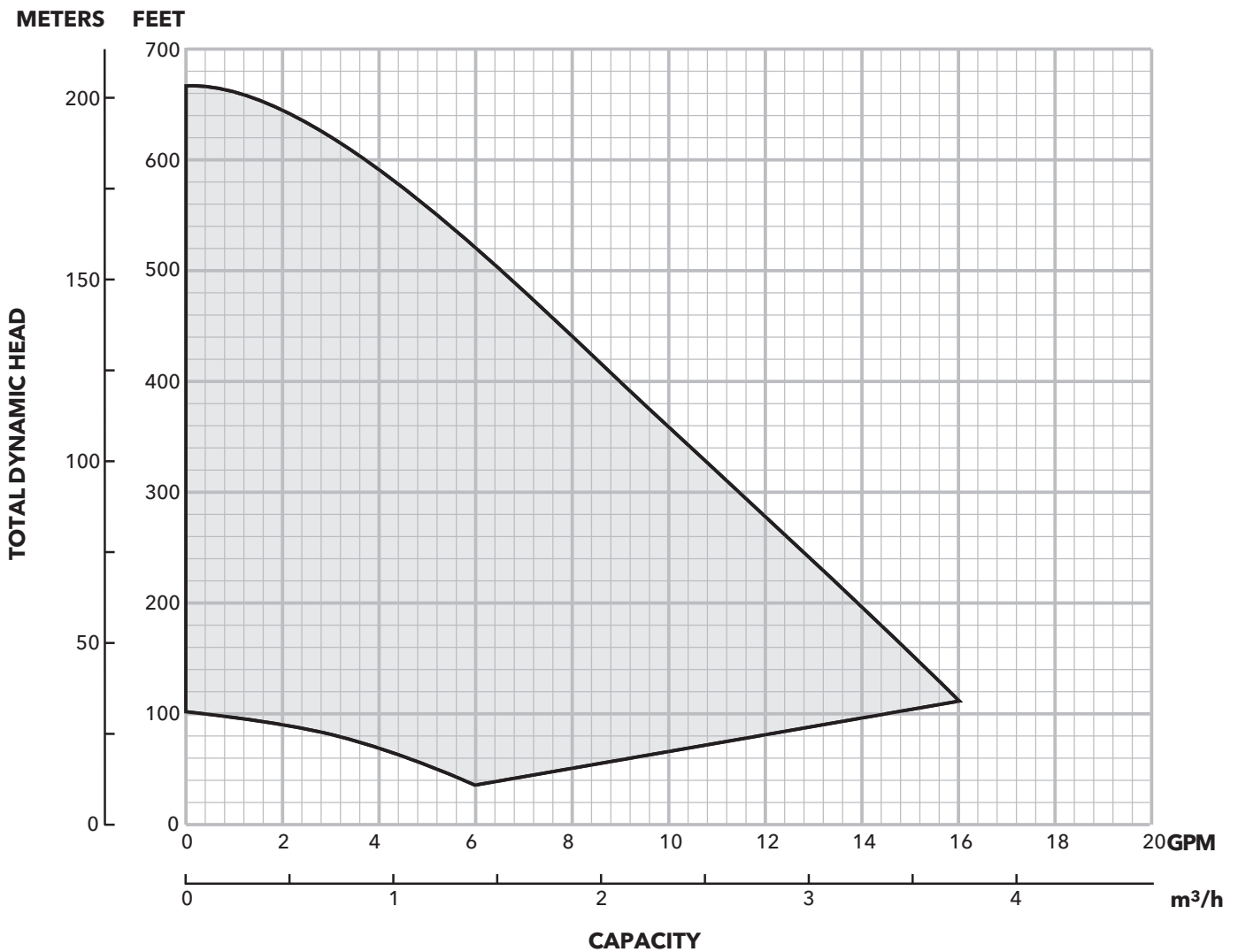
Kit No.	Sh. Weight (lb)	No. cartons	L x W x H (in)
7GP0715	56	1	33.9 x 21.4 x 11.5
10GP0715	56	1	
18GP0715	55	1	
7GP1020	62	1	
10GP1020	62	1	
18GP1020	61	1	
25GP1020	61	1	
7GP1530	70	1	
10GP1530	70	1	
18GP1530	68	1	
25GP1530	67	1	
33GP1530	67	1	
18GP3050	101	2 ①	
25GP3050	100	2 ①	
33GP3050	99	2 ①	

① The 5 HP units have the controller and pump in one carton and the motor is shipped separately due to weight. See M50432 for motor weight and dimensions.

### MODEL 7GS07 30-80 Hz with 1.5 HP Motor and 3AS20

#### SELECTION CHART

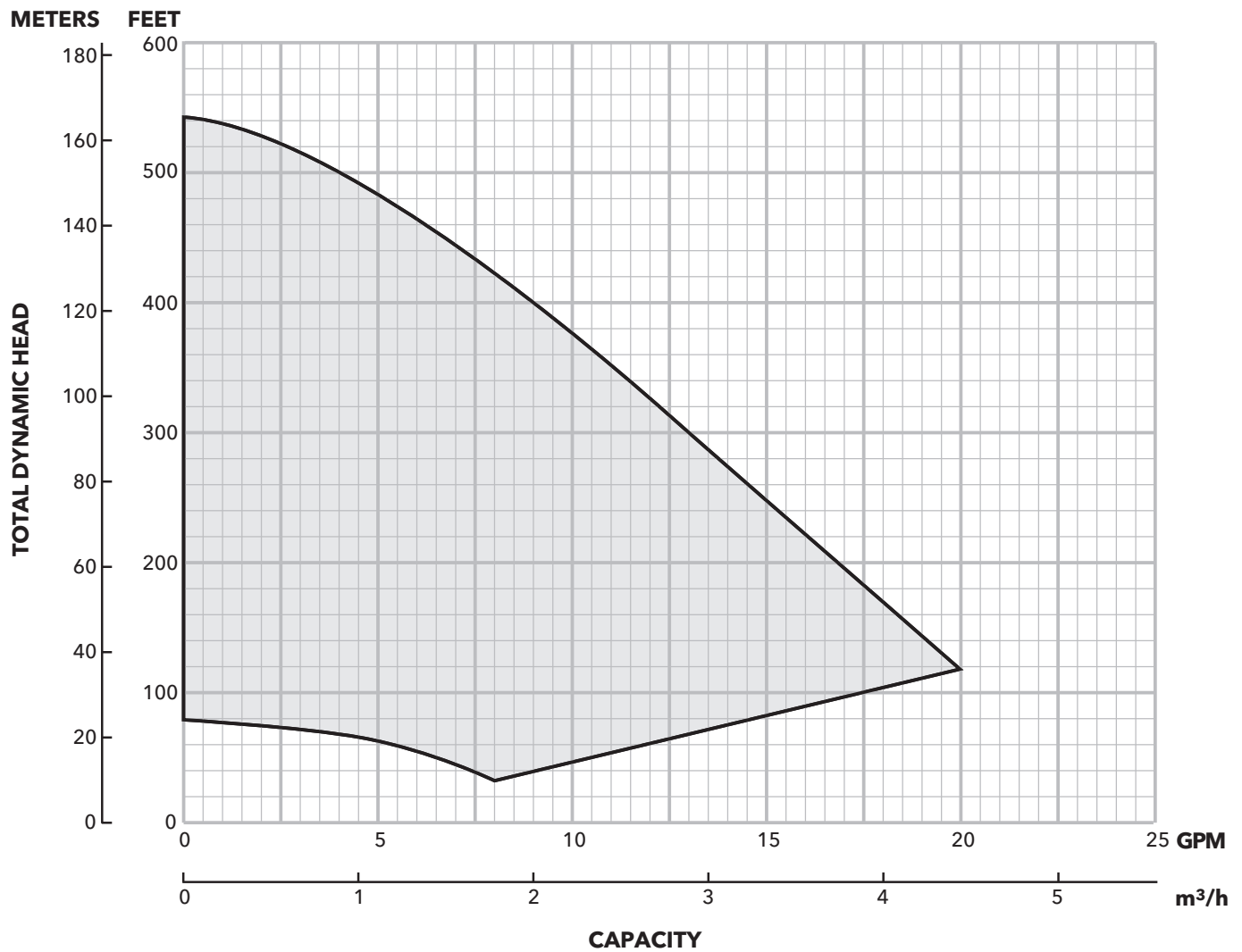
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																						
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580	620
7GS07	0						16.1	15.6	15.0	14.5	13.9	13.4	12.9	12.3	11.8	11.3	10.3	9.4	8.5	7.6	6.7	5.6	4.4	2.8
	50	15.7	15.2	14.6	14.1	13.5	13.0	12.4	11.9	11.4	10.9	10.4	10.0	9.5	9.1	8.6	7.7	6.8	5.8	4.5	3.0			
	60	15.1	14.5	14.0	13.4	12.9	12.4	11.8	11.3	10.8	10.4	9.9	9.4	9.0	8.5	8.1	7.2	6.2	5.1	3.7				
	70	14.4	13.9	13.4	12.8	12.3	11.8	11.2	10.8	10.3	9.8	9.4	8.9	8.5	8.0	7.6	6.6	5.6	4.3	2.7				
Shut-off PSI		281	272	264	255	247	238	229	221	212	203	195	186	177	169	160	143	125	108	91	73	56	39	21



### MODEL 10GS07 30-80 Hz with 1.5 HP Motor and 3AS20

#### SELECTION CHART

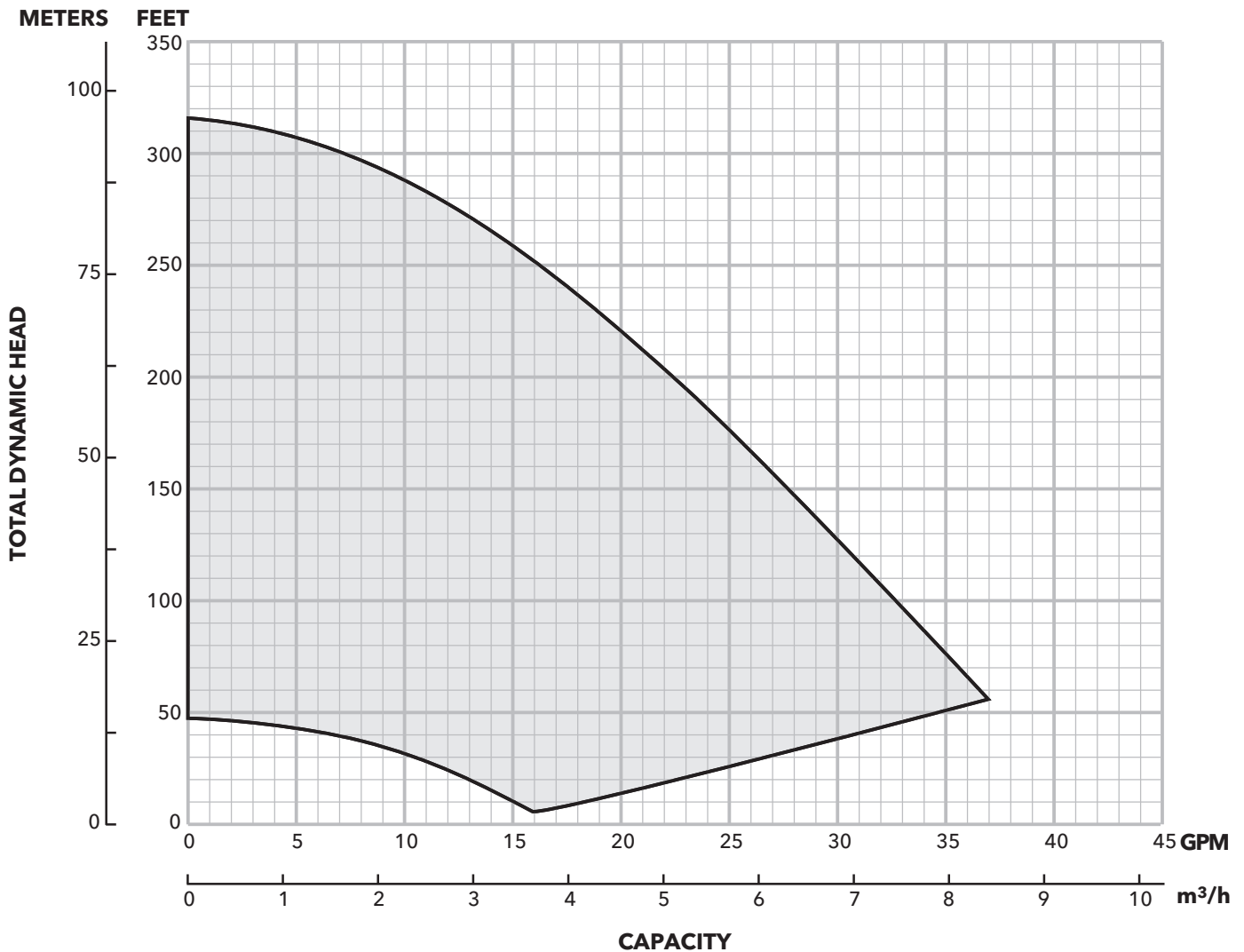
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																			
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500
10GS07	0						20.0	19.2	18.4	17.6	16.8	15.9	15.1	14.4	13.6	12.9	11.4	10.0	8.3	6.4	3.9
	50	19.4	18.6	17.8	16.9	16.1	15.3	14.5	13.8	13.0	12.3	11.6	10.9	10.1	9.4	8.5	6.6	4.2			
	60	18.5	17.6	16.8	16.0	15.2	14.4	13.7	12.9	12.2	11.5	10.8	10.0	9.2	8.4	7.5	5.3				
	70	17.5	16.7	15.9	15.1	14.3	13.6	12.8	12.1	11.4	10.6	9.9	9.1	8.3	7.3	6.3	3.8				
Shut-off PSI		227	218	210	201	192	184	175	166	158	149	140	132	123	114	106	89	71	54	37	19



### MODEL 18GS07 30-80 Hz with 1.5 HP Motor and 3AS20

#### SELECTION CHART

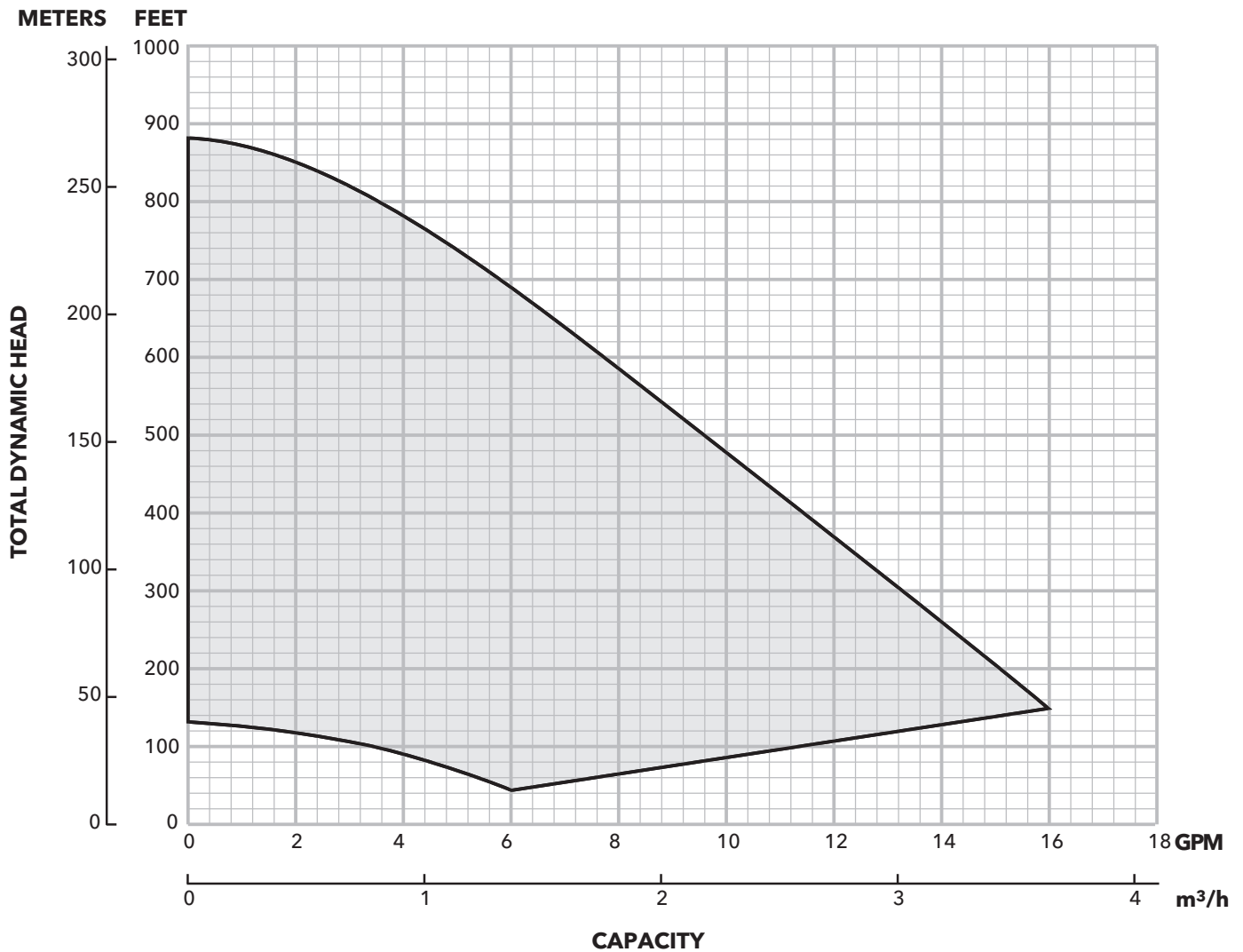
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)														
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300
18GS07	0				35.1	32.8	30.5	28.3	26.2	24.2	22.4	20.4	18.1	15.2	11.5	6.3
	50	28.7	26.6	24.7	22.8	20.8	18.7	16.0	12.4	7.6						
	60	26.3	24.4	22.5	20.5	18.3	15.5	11.8	6.8							
	70	24.1	22.2	20.2	17.9	15.0	11.1	5.8								
Shut-off PSI			129	120	111	103	94	85	77	68	59	51	42	34	25	168



### MODEL 7GS10 30-80 Hz with 2 HP Motor and 3AS20

#### SELECTION CHART

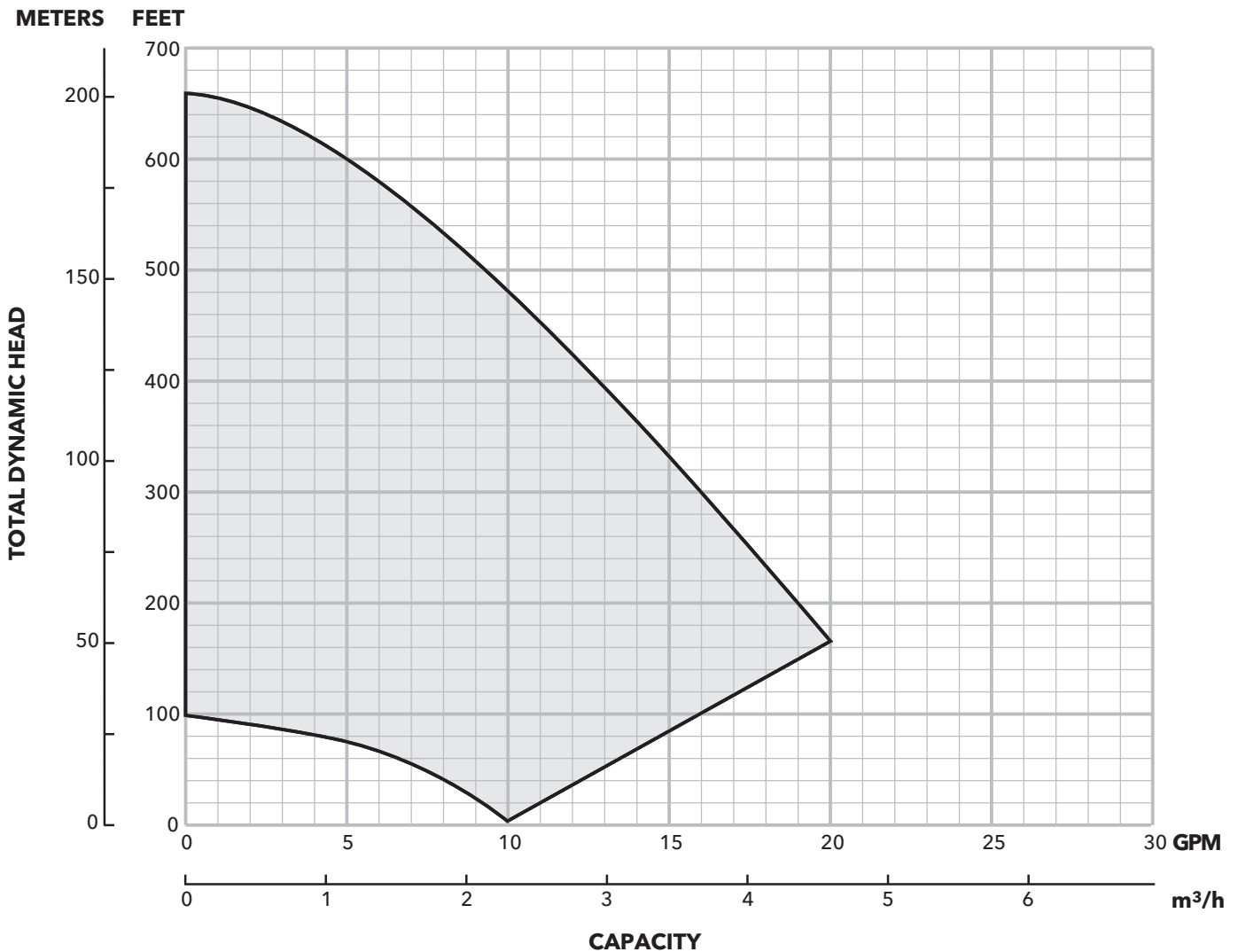
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																							
		80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580	620	660	700	740	780
7GS10	0				16.0	15.8	15.6	15.3	14.9	14.6	14.2	13.8	13.4	12.5	11.7	10.9	10.1	9.4	8.7	8.1	7.4	6.7	6.0	5.1	4.1
	50			14.7	14.3	13.9	13.5	13.1	12.6	12.2	11.8	11.4	11.0	10.2	9.5	8.8	8.1	7.5	6.8	6.1	5.2	4.2	3.0		
	60		14.6	14.2	13.8	13.4	13.0	12.6	12.2	11.7	11.3	10.9	10.5	9.8	9.1	8.4	7.8	7.1	6.4	5.6	4.7	3.5	2.1		
	70	14.6	14.2	13.8	13.4	12.9	12.5	12.1	11.7	11.3	10.9	10.5	10.1	9.4	8.7	8.0	7.4	6.7	6.0	5.1	4.0	2.7			
<b>Shut-off PSI</b>		348	339	330	322	313	304	296	287	278	270	261	252	235	218	200	183	166	148	131	114	96	79	62	45



### MODEL 10GS10 30-80 Hz with 2 HP Motor and 3AS20

#### SELECTION CHART

Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																					
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580
10GS10	0								20.3	19.6	19.0	18.3	17.7	17.0	16.4	15.8	14.6	13.4	12.2	10.9	9.5	7.9	5.9
	50			19.8	19.1	18.5	17.8	17.2	16.5	15.9	15.3	14.7	14.1	13.5	12.9	12.3	11.1	9.7	8.1	6.1	3.8		
	60		19.7	19.0	18.4	17.7	17.1	16.4	15.8	15.2	14.6	14.0	13.4	12.8	12.2	11.6	10.3	8.8	7.0	4.8			
	70	19.6	18.9	18.3	17.6	17.0	16.4	15.7	15.1	14.5	13.9	13.3	12.7	12.1	11.5	10.9	9.4	7.8	5.8				
Shut-off PSI		278	269	260	252	243	234	226	217	208	200	191	182	174	165	156	139	122	104	87	70	52	35

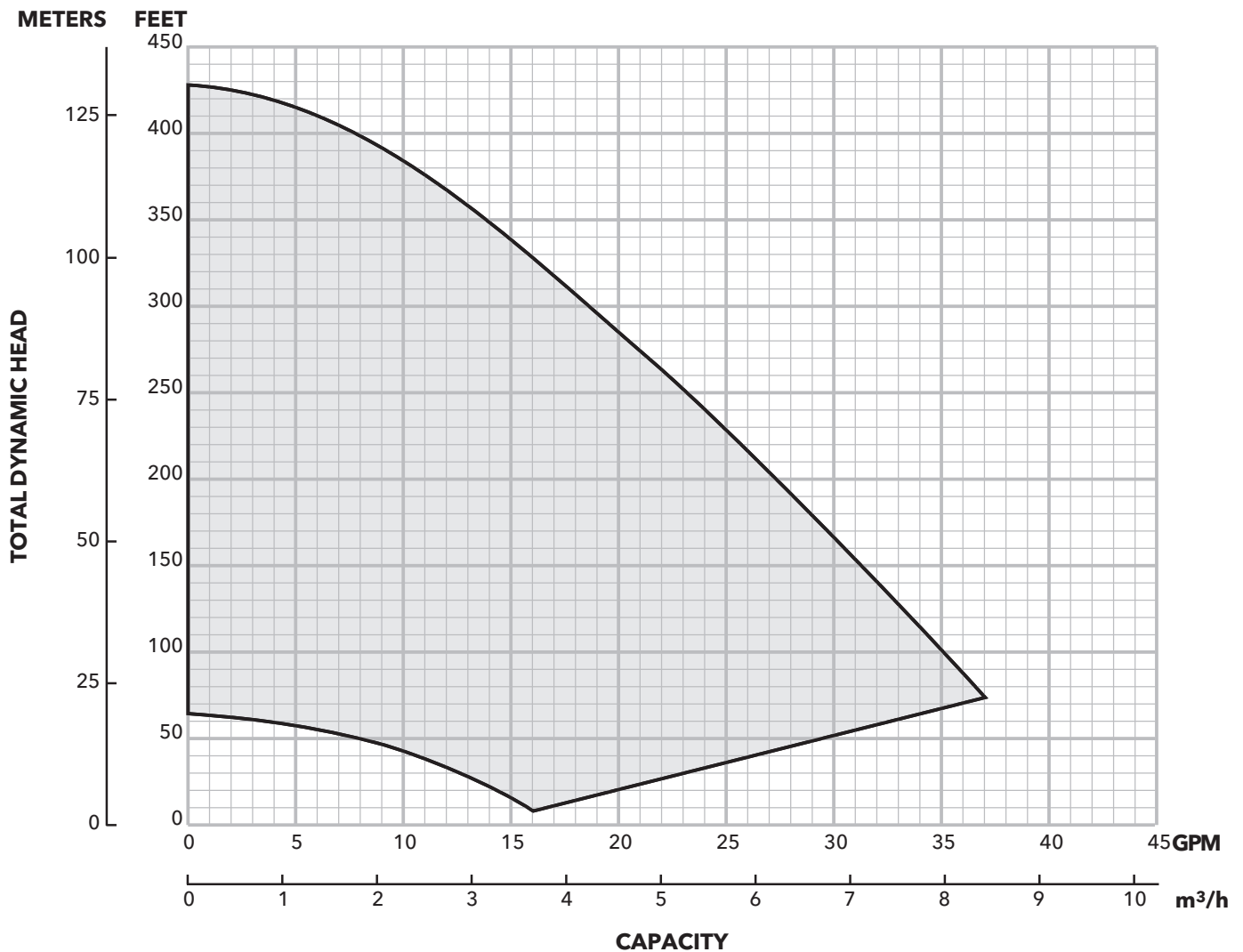




### MODEL 18GS10 30-80 Hz with 2 HP Motor and 3AS20

#### SELECTION CHART

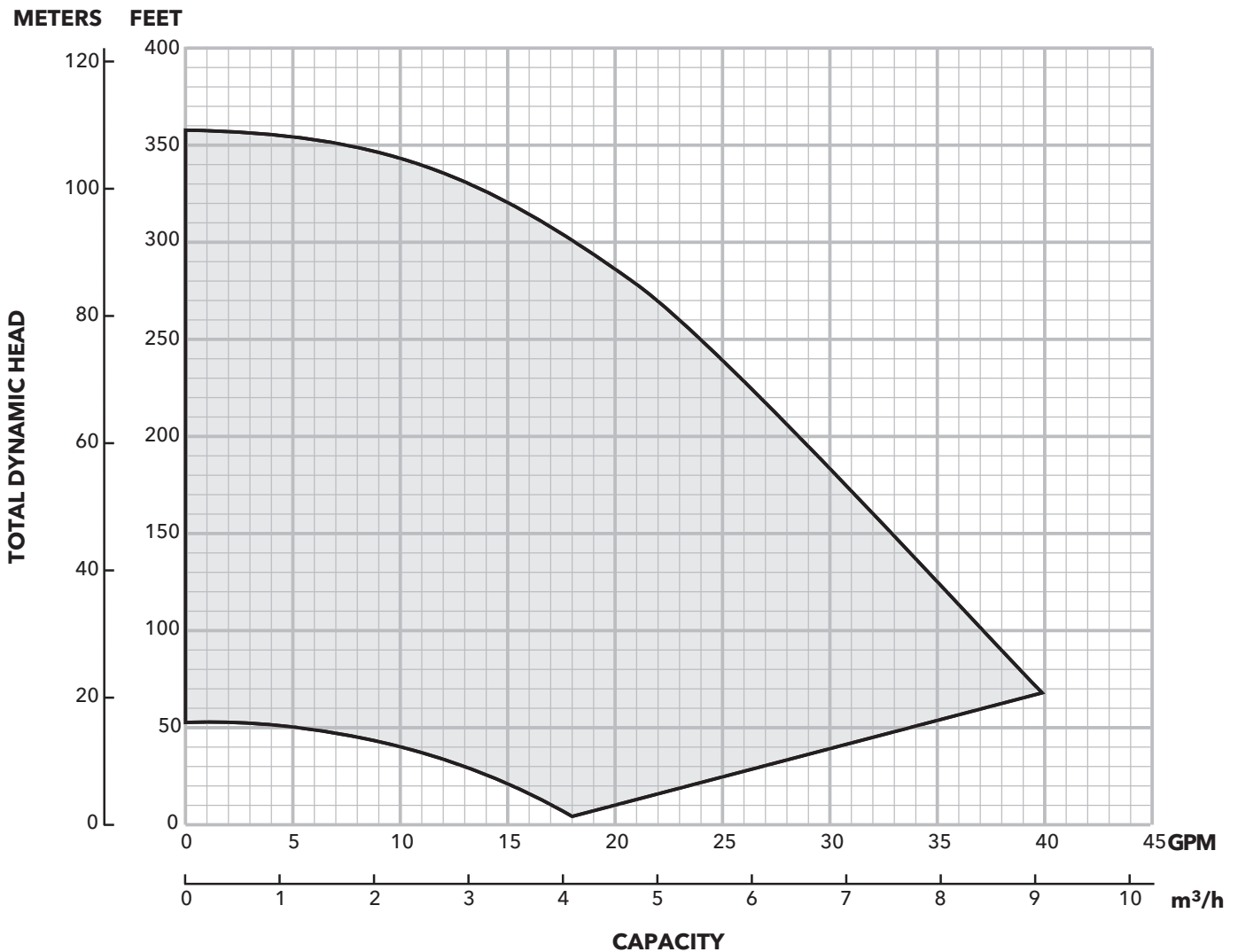
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380
18GS10	0				37.0	35.4	33.7	31.9	30.1	28.4	26.7	25.1	23.5	22.0	20.5	19.0	15.3	10.2
	50	32.3	30.5	28.7	27.1	25.4	23.9	22.4	20.9	19.3	17.6	15.8	13.5	10.9	7.6			
	60	30.2	28.5	26.8	25.2	23.7	22.2	20.6	19.1	17.4	15.4	13.2	10.4	7.1				
	70	28.2	26.5	25.0	23.4	21.9	20.4	18.8	17.1	15.1	12.8	9.9	6.5					
Shut-off PSI		177	168	159	151	142	133	125	116	107	99	90	82	73	64	56	38	21



### MODEL 25GS10 30-80 Hz with 2 HP Motor and 3AS20

#### SELECTION CHART

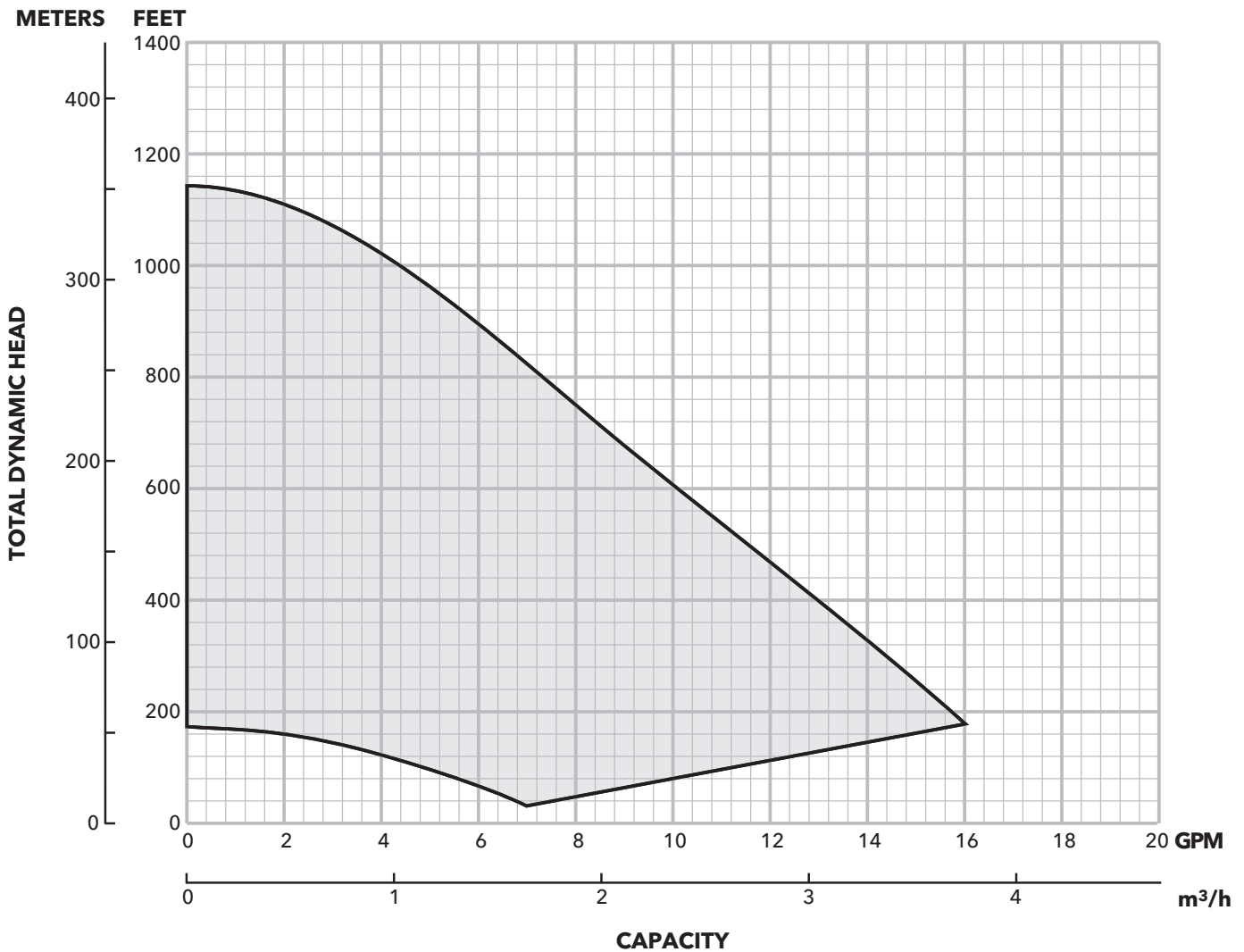
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)															
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340
25GS10	0			39.7	39.7	38.4	36.5	34.2	31.9	29.8	28.0	26.4	25.0	23.5	21.7	19.1	9.4
	50	34.7	32.4	30.3	28.4	26.8	25.3	23.9	22.2	19.8	16.2	10.9					
	60	32.1	30.0	28.1	26.5	25.1	23.6	21.8	19.3	15.5	9.9						
	70	29.7	27.9	26.3	24.9	23.4	21.5	18.8	14.8	8.8							
Shut-off PSI		146	137	129	120	112	103	94	86	77	68	60	51	42	34	25	8



### MODEL 7GS15 30-80 Hz with 3 HP Motor and 3AS30

#### SELECTION CHART

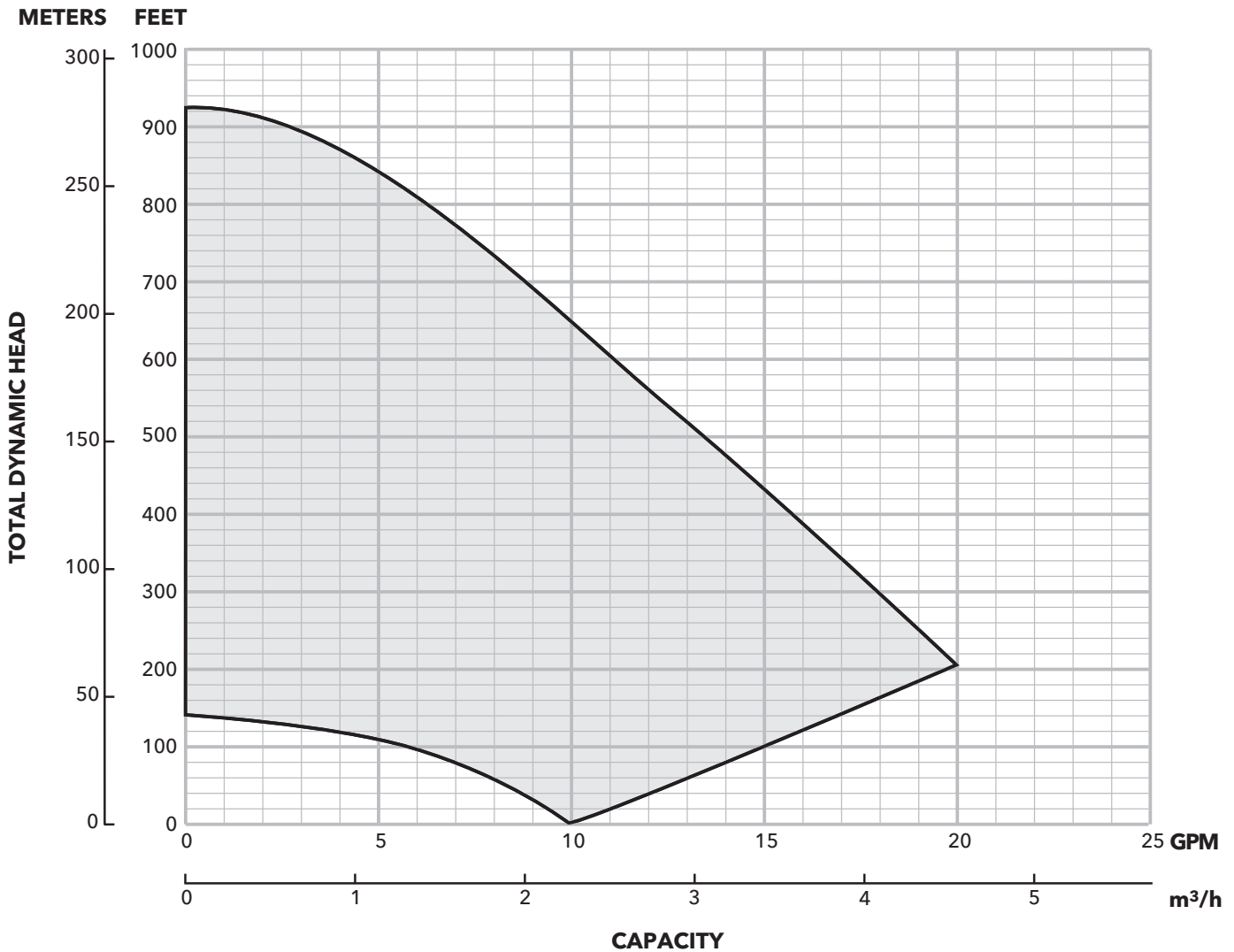
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																														
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580	620	660	700	740	780	820	860	900	980
7GS15	0						15.8	15.9	15.9	15.9	15.8	15.5	15.3	15.0	14.7	14.2	13.5	12.8	12.1	11.5	10.8	10.2	9.6	9.0	8.5	8.1	7.6	7.1	6.7	6.1	4.9	
	50	15.9	15.9	15.9	15.8	15.7	15.5	15.3	15.1	14.8	14.5	14.2	13.9	13.6	13.2	12.9	12.2	11.5	10.9	10.2	9.7	9.1	8.6	8.1	7.6	7.2	6.7	6.2	5.6	5.0	4.2	2.0
	60	15.9	15.9	15.8	15.6	15.5	15.3	15.0	14.8	14.5	14.2	13.9	13.5	13.2	12.8	12.5	11.8	11.1	10.5	9.9	9.3	8.8	8.3	7.8	7.4	6.9	6.4	5.9	5.3	4.5	3.6	
	70	15.9	15.8	15.6	15.4	15.2	15.0	14.7	14.4	14.1	13.8	13.5	13.1	12.8	12.5	12.1	11.4	10.8	10.2	9.6	9.0	8.5	8.0	7.6	7.1	6.6	6.1	5.5	4.9	4.0	3.0	
Shut-off PSI		486	477	469	460	452	443	434	426	417	408	400	391	382	374	365	348	330	313	296	278	261	244	226	209	192	174	157	140	123	105	71



### MODEL 10GS15 30-80 Hz with 3 HP Motor and 3AS30

#### SELECTION CHART

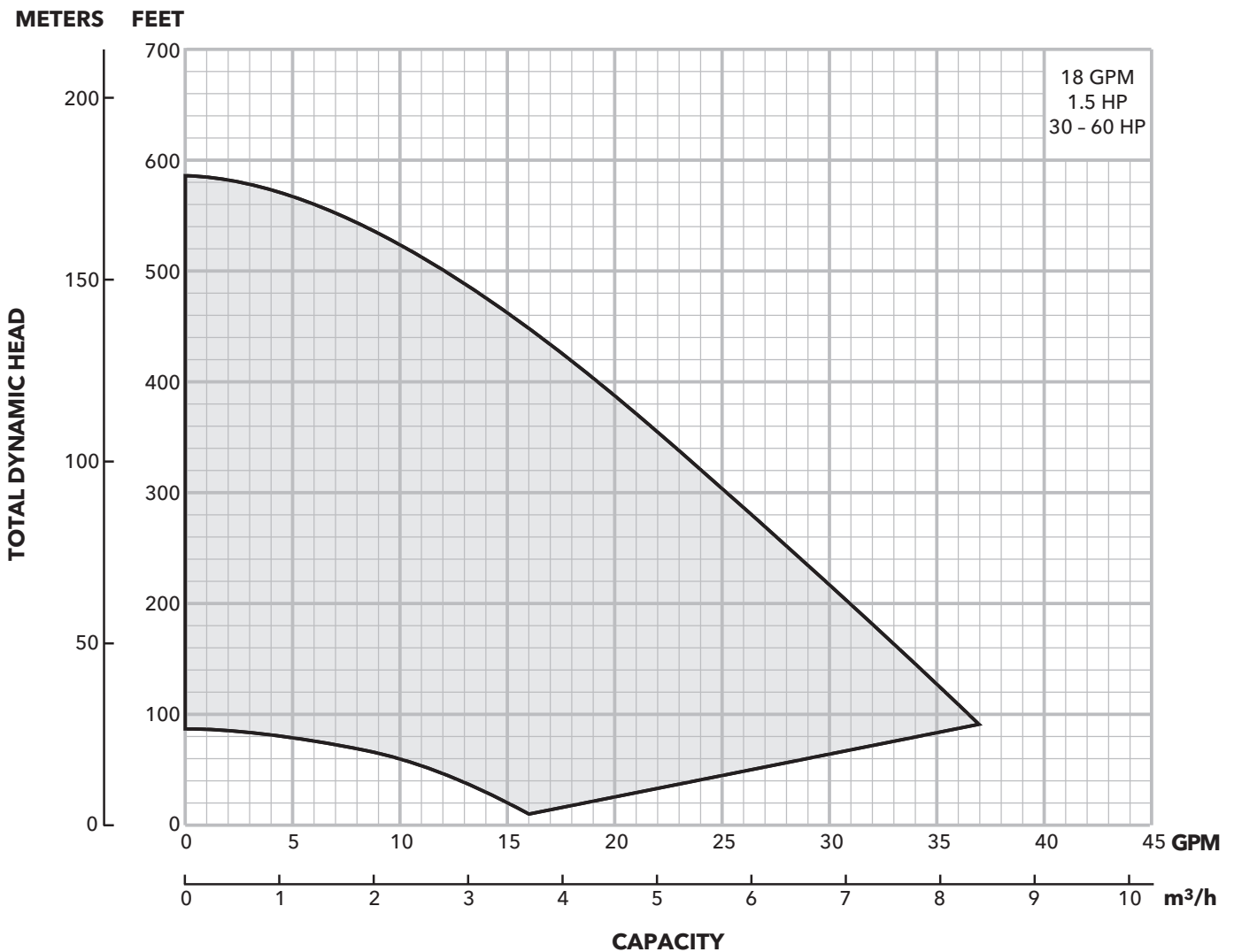
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																									
		80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580	620	660	700	740	780	820	
10GS15	0								19.9	19.5	19.0	18.5	18.0	17.0	16.0	15.0	14.1	13.2	12.4	11.6	10.8	10.0	9.2	8.2	7.1	5.8	
	20						19.8	19.3	18.9	18.4	17.8	17.3	16.8	15.8	14.8	13.9	13.0	12.2	11.4	10.7	9.9	9.0	8.1	6.9	5.6	3.9	
	30					19.7	19.3	18.8	18.3	17.8	17.2	16.7	16.2	15.2	14.3	13.4	12.6	11.8	11.0	10.2	9.4	8.5	7.4	6.2	4.6		
	40			20.1	19.7	19.2	18.7	18.2	17.7	17.2	16.7	16.2	15.7	14.7	13.8	12.9	12.1	11.3	10.6	9.8	8.9	7.9	6.7	5.3	3.6		
	50		20.0	19.6	19.1	18.6	18.1	17.6	17.1	16.6	16.1	15.6	15.1	14.2	13.3	12.4	11.7	10.9	10.1	9.3	8.3	7.3	6.0	4.4			
	60	20.0	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	13.6	12.8	12.0	11.2	10.4	9.6	8.7	7.7	6.5	5.1	3.3			
	70	19.4	19.0	18.5	18.0	17.4	16.9	16.4	15.9	15.4	14.9	14.5	14.0	13.1	12.3	11.5	10.8	10.0	9.1	8.2	7.1	5.7	4.1				
<b>Shut-off PSI</b>		368	359	350	342	333	324	316	307	298	290	281	272	255	238	220	203	186	169	151	134	117	99	82	65	47	



### MODEL 18GS15 30-80 Hz with 3 HP Motor and 3AS30

#### SELECTION CHART

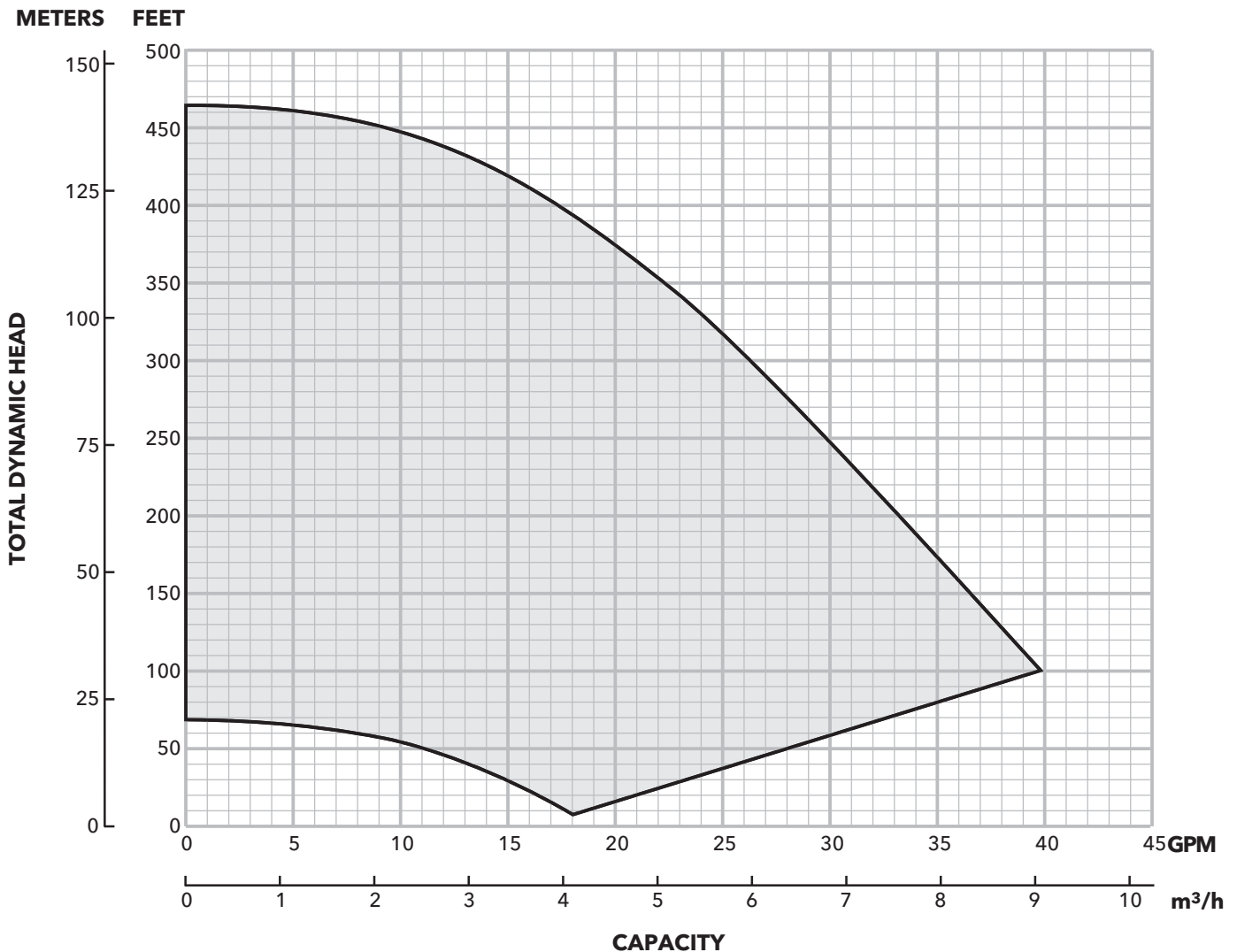
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																				
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420	460	500	540
18GS15	0					37.1	35.9	34.6	33.3	32.0	30.7	29.4	28.2	27.0	25.8	24.7	22.6	20.5	18.3	15.7	12.4	7.9
	50	34.9	33.6	32.3	31.0	29.7	28.4	27.2	26.1	24.9	23.8	22.8	21.8	20.7	19.7	18.5	16.0	12.8	8.5			
	60	33.4	32.1	30.8	29.5	28.2	27.0	25.9	24.8	23.7	22.6	21.6	20.6	19.5	18.4	17.1	14.3	10.5	5.3			
	70	31.9	30.6	29.3	28.1	26.9	25.7	24.6	23.5	22.5	21.4	20.4	19.3	18.2	16.9	15.6	12.2	7.7				
Shut-off PSI		246	237	229	220	211	203	194	185	177	168	159	151	142	133	125	107	90	73	55	38	21



### MODEL 25GS15 30-80 Hz with 3 HP Motor and 3AS30

#### SELECTION CHART

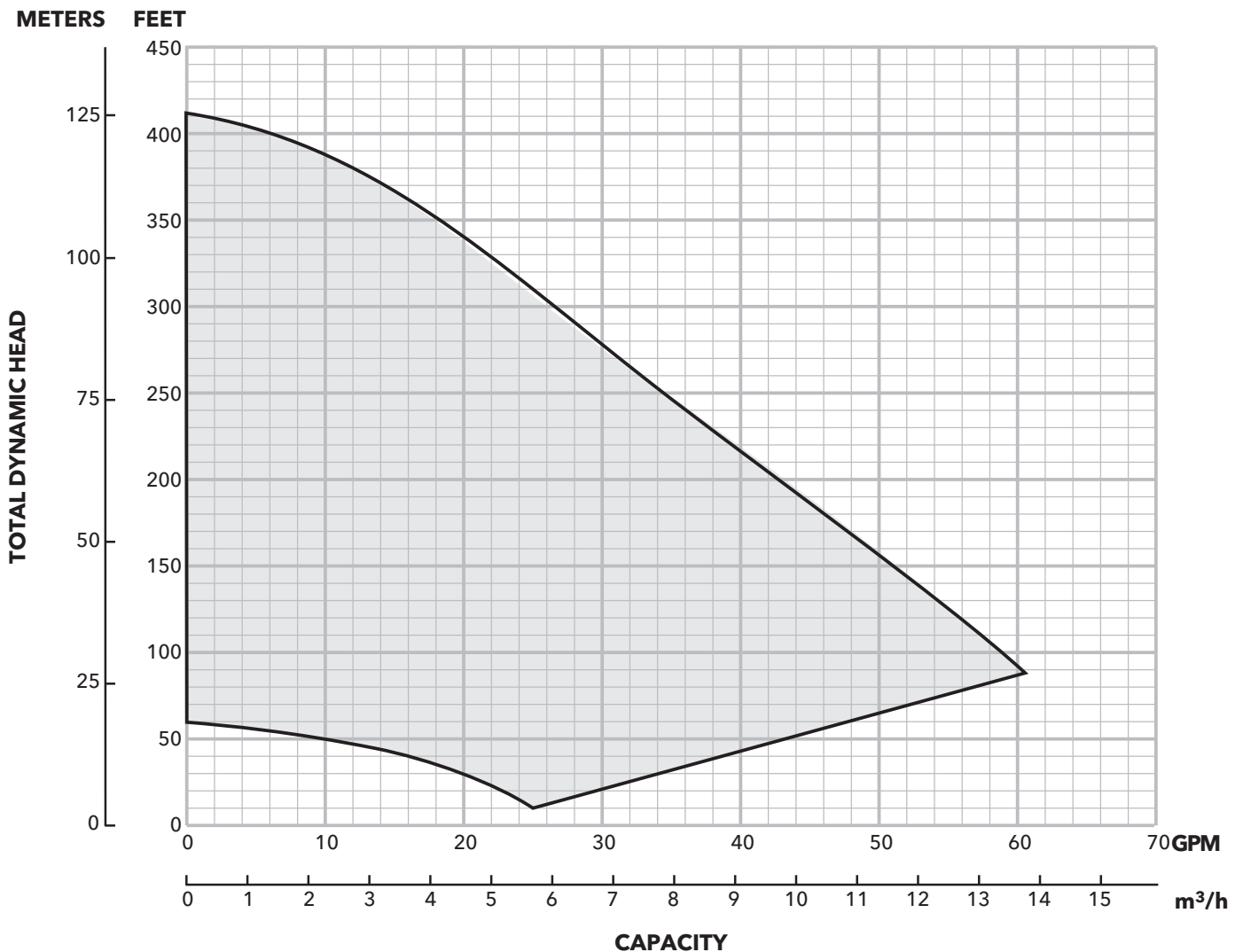
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																
		40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	380	420
25GS15	0							37.0	35.2	33.2	31.3	29.6	28.1	26.8	25.7	23.7	20.9	15.2
	50			33.7	31.7	30.0	28.4	27.0	25.9	24.9	24.0	22.8	21.3	19.2	16.1			
	60		33.4	31.5	29.7	28.2	26.9	25.8	24.8	23.8	22.6	21.1	18.8	15.5	10.8			
	70	33.1	31.2	29.4	27.9	26.7	25.6	24.6	23.6	22.4	20.8	18.3	14.9	10.0				
Shut-off PSI		184	175	166	158	149	140	132	123	114	106	97	88	80	71	54	36	19



### MODEL 35GS15 30-80 Hz with 3 HP Motor and 3AS30

#### SELECTION CHART

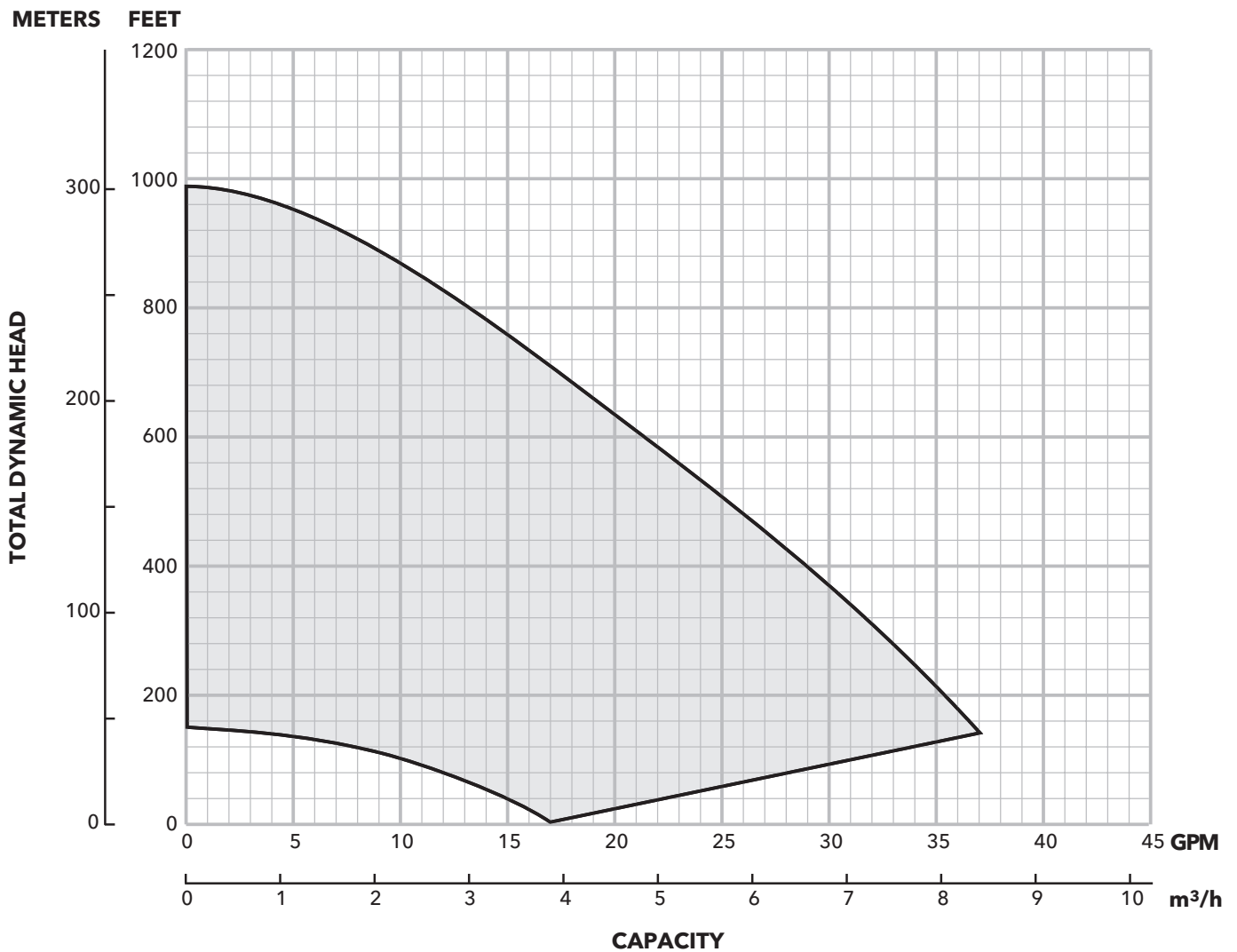
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)										
		20	40	60	80	100	120	140	160	180	200	220
35GS15	0			48	46	43	40	37	33	29	23	14
	20	47	45	43	39	36	32	28	21	10		
	30	45	42	39	35	32	27	19				
	40	42	38	35	31	26	18					
	50	38	34	30	25	16						
	60	34	29	24	15							
Shut-off PSI		97	88	79	71	62	53	45	36	27	19	10



### MODEL 18GS30 30-80 Hz with 5 HP Motor and 3A550

#### SELECTION CHART

Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																										
		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
18GS30	0							36.6	35.9	35.2	34.5	33.8	33.0	32.3	30.7	29.2	27.7	26.2	24.7	23.3	21.9	20.6	19.2	17.7	16.2	14.5	12.6	10.4
	50			35.4	34.7	33.9	33.2	32.4	31.7	30.9	30.1	29.4	28.6	27.8	26.3	24.9	23.5	22.1	20.7	19.3	17.9	16.4	14.7	12.8	10.6	8.2	5.3	
	60		35.3	34.6	33.8	33.1	32.3	31.5	30.8	30.0	29.2	28.5	27.7	27.0	25.5	24.1	22.7	21.3	19.9	18.5	17.0	15.4	13.6	11.6	9.3	6.5		
	70	35.2	34.5	33.7	33.0	32.2	31.4	30.7	29.9	29.1	28.4	27.6	26.9	26.1	24.7	23.3	21.9	20.5	19.1	17.7	16.1	14.4	12.5	10.3	7.7			
Shut-off PSI		403	394	385	377	368	359	351	342	333	325	316	307	299	281	264	247	229	212	195	177	160	143	125	108	91	74	56

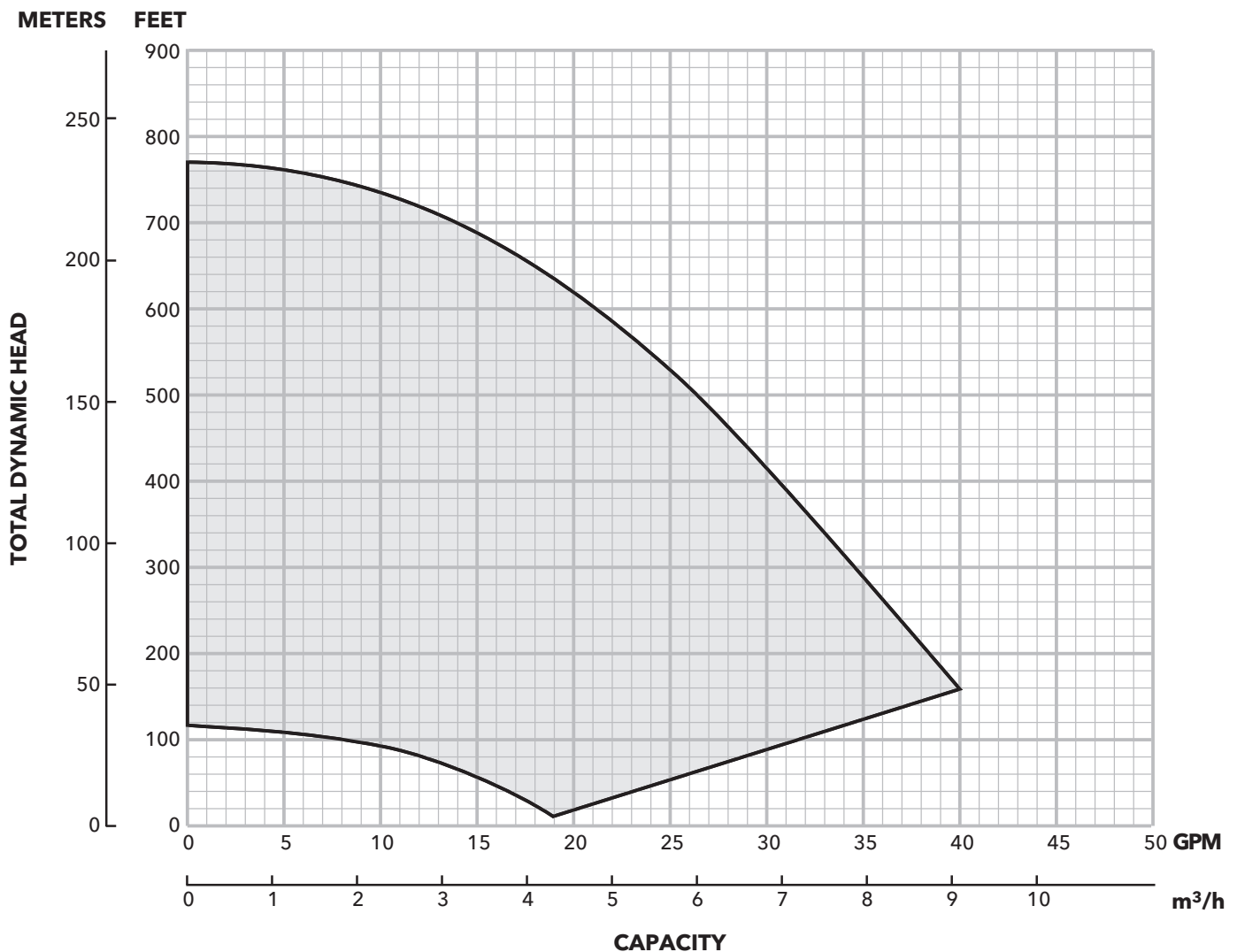




### MODEL 25GS30 30-80 Hz with 5 HP Motor and 3AS50

#### SELECTION CHART

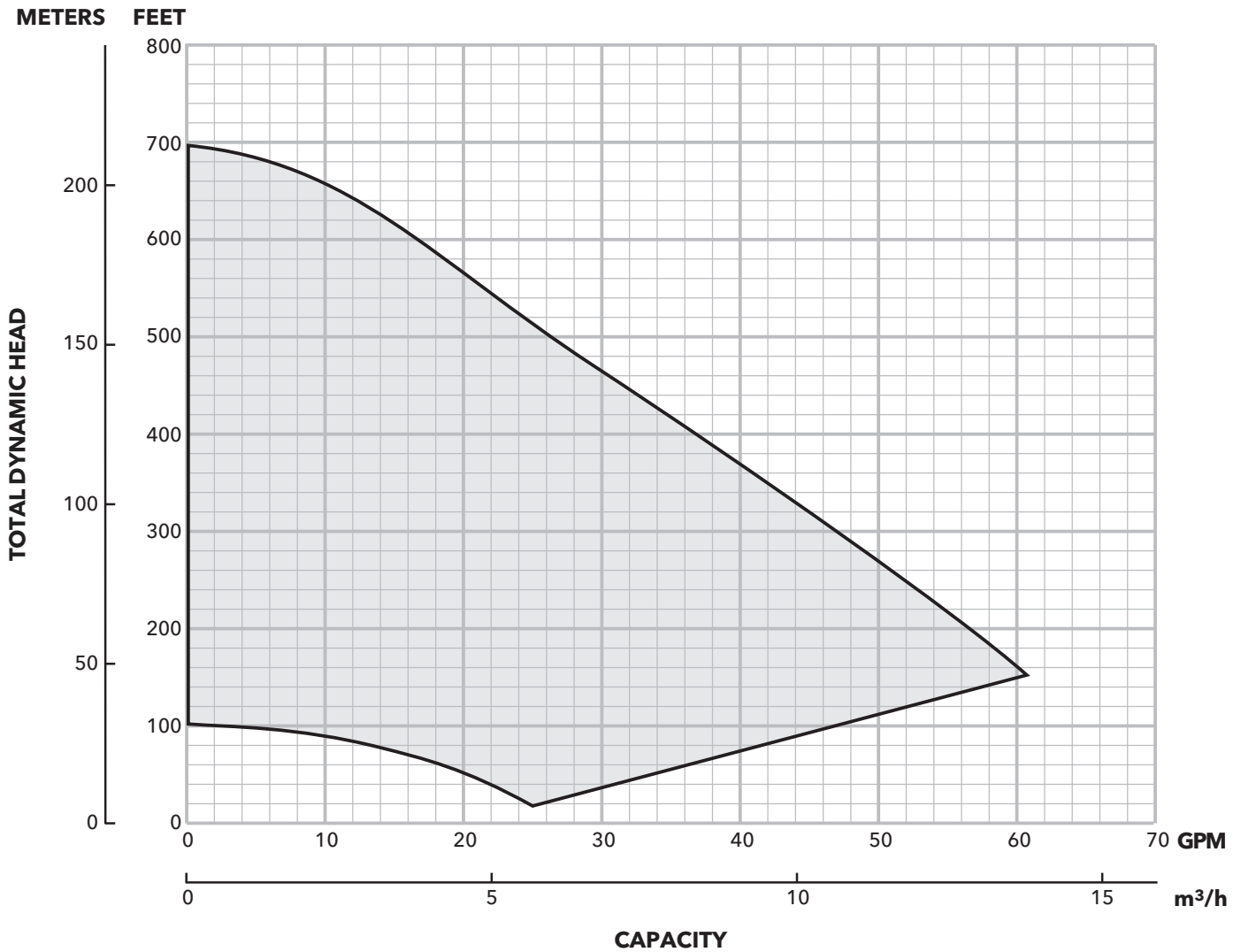
Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																		
		140	160	180	200	220	240	260	280	300	340	380	420	460	500	540	580	620	660	700
25GS30	0		39.5	39.0	38.4	37.8	36.9	36.1	34.9	33.9	32.2	30.7	29.3	28.0	26.8	25.4	23.6	21.2	18.0	13.5
	50			34.2	33.2	32.4	31.6	30.8	30.1	29.4	28.2	26.9	25.5	23.8	21.5	18.4	14.1	8.3		
	60		34.0	33.1	32.3	31.5	30.7	30.0	29.3	28.7	27.5	26.1	24.6	22.6	19.8	16.1	11.0			
	70	33.9	33.0	32.1	31.3	30.6	29.9	29.2	28.6	28.0	26.7	25.3	23.5	21.1	17.8	13.3				
Shut-off PSI		273	264	256	247	238	230	221	212	204	186	169	152	134	117	100	83	65	48	31



### MODEL 35GS30 30-80 Hz with 5 HP Motor and 3AS50

#### SELECTION CHART

Pump Model	PSI	Depth to Water in Feet/Ratings in GPM (Gallons Per Minute)																			
		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
35GS30	0				50	48	47	45	44	42	41	39	38	36	34	31	28	25	21	16	10
	20		49	48	46	45	43	42	40	39	37	35	33	30	27	24	19	14			
	30	49	47	46	45	43	42	40	39	37	35	33	30	27	23	18	13				
	40	47	46	44	43	41	40	38	37	35	32	30	26	22	18	12					
	50	46	44	43	41	40	38	36	34	32	29	26	22	17	11						
	60	44	42	41	39	38	36	34	31	29	25	21	16	10							
Shut-off PSI		176	168	159	150	142	133	124	116	107	98	90	81	72	64	55	46	38	29	20	12



### WIRE SIZING - MAXIMUM CABLE LENGTHS IN FEET TO LIMIT VOLTAGE DROP TO 5% FOR 230 V SYSTEMS <sup>⑤</sup>

#### Service Entrance to Controller

Controller Input	Motor HP	Copper Wire Size 75°C Insulation Exposed to a Maximum of 50°C (122°F) Ambient Temperature <sup>⑥</sup>															
		14	12	10	8	6	4	2	1/0	2/0	3/0	4/0	250	300	350	400	500
230V 1 PH	½	366	583	925	1336	2107	3345	5267	8364								
	¾	279	445	706	1020	1608	2552	4019	6383	8055							
	1	226	360	571	824	1300	2064	3250	5161	6513	8201						
	1½	*	<b>286</b>	455	657	1036	1644	2589	4111	5188	6533	8236	9710				
	2	*	*	<b>331</b>	478	754	1197	1886	2995	3779	4759	5999	7073	8455	9852		
	3	*	*	<b>246</b>	355	561	890	1401	2225	2808	3536	4458	5256	6283	7321	8343	
5	*	*	*	<b>218</b>	<b>343</b>	545	858	1363	1720	2165	2730	3219	3847	4483	5109	6348	

#### Controller to Motor

Controller Output	Motor HP	Copper Wire Size 75°C Insulation Exposed to a Maximum of 50°C (122°F) Ambient Temperature <sup>⑥</sup>												
		14	12	10	8	6	4	2	1/0	2/0	3/0	4/0	250	300
230V 3 PH	½	905	1442	2290	3306	5213	8276							
	¾	690	1100	1748	2523	3978	6316	9945						
	1	558	890	1413	2040	3216	5106	8041						
	1½	445	709	1126	1625	2562	4068	6406						
	2	324	516	820	1184	1866	2963	4666	7410	9351				
	3	241	384	609	880	1387	2202	3467	5506	6949	8750			
5	*	235	373	539	849	1348	2123	3372	4255	5358	6755	7964	9520	

<sup>⑤</sup> Reduce lengths by 13% for 200 V systems. <sup>⑥</sup> Lengths in bold require 90°C wire. Shading indicates 40°C maximum ambient. \* Wire does not meet the N.E.C. ampacity requirement.

The lengths in each of the Wire Sizing tables represent 100% of the allowable voltage drop when motor is running at full load. When sizing wire, the voltage drop of each wire segment must be included. The total must not exceed 100% of the allowable drop. Take for example a 1.5 HP motor with a distance from Service Entrance to Controller of 100' and 500' between the Controller and Motor.

- Service Entrance to Controller = 100' of 10 AWG (100/455) = 22% (455' is from the S.E. to Controller chart)
  - Controller to Motor = 500' of 12 AWG (500/709) = 71% (709' is from the Controller to Motor chart)
- Total Drop (must be ≤ 100%) = 93%

If the distance from the Controller to Motor was 600' (600/709) = 85% + 22% = 107%, we would need to use #10 wire for that segment, ex. 600/1126 = 53% + 22% (for 100' of #10) = 75% which is acceptable. It is also acceptable to use different wire sizes for the Buried and Well sections of wire.

## AQUAVAR SOLO<sup>2</sup> DATA

### Controller, Breaker, Generator Sizing

3 Phase Motor HP	Voltage <sup>①</sup>	Controller Model <sup>②</sup>			Circuit Breaker <sup>③</sup>	Generator <sup>④</sup> (VA)
		3AS20	3AS30	3AS50		
¾	230				15	2900
	200					
1	230				20	3500
	200					
1½	230				20	4400
	200					
2	230				30	6100
	200					
3	230				30	8100
	200					
5	230				50	13300
	200					

### Service Factor Amps 3 Phase Motors

HP	230 Volt, 3Ø		200 Volt, 3Ø	
	CentriPro SFA	Franklin SFA	CentriPro SFA	Franklin SFA
¾	3.9	3.8	4.5	4.4
1	4.7	4.7	5.5	5.4
1½	6.1	5.9	7.2	6.8
2	7.6	8.1	8.8	9.3
3	10.1	10.9	12	12.5
5	17.5	17.8	20.2	20.5

#### NOTES:

- ① Motor Nameplate must be the same as supply voltage.
- ② Shaded areas indicate which controller models can be used with which motors. Lighter shading indicates combinations where controller will limit peak performance to 85% of catalog value for pump/motor.
- ③ Circuit Breaker or Dual Element Time Delay Fuse Size (Amps) protecting branch circuit supplying controller.
- ④ Minimum size of single phase 240 V generator required.

# THREE PHASE, 4", MOTOR DATA

## Electrical Data, 60 Hertz, 3450 RPM, 4" Motors

CentriPro #	Red Jacket #	HP	kW	Volts	SF	Full Load		Service Factor		Locked Rotor Amps	Line - Line Resistance
						Amps	Watts	Amps	Watts		
M07430	75C323	<b>0.75</b>	0.55	200	1.5	3.8	812	4.5	1140	32	2.6-3.0
M10430	100C323	<b>1</b>	0.75		1.4	4.6	1150	5.5	1500	29	3.4-3.9
M15430	150C323	<b>1.5</b>	1.1		1.3	6.3	1560	7.2	1950	40	1.9-2.5
M20430	200C323	<b>2</b>	1.5		1.25	7.5	2015	8.8	2490	51	1.4-2.0
M30430	300C323	<b>3</b>	2.2		1.15	10.9	2890	12.0	3290	71	0.9-1.3
M50430	500C323	<b>5</b>	3.7		1.15	18.3	4850	20.2	5515	113	0.4-0.8
M07432	75C313	<b>0.75</b>	0.55	230	1.5	3.3	850	3.9	1185	27	3.3 - 4.3
M10432	100C313	<b>1</b>	0.75		1.4	4.0	1090	4.7	1450	26.1	4.1-5.1
M15432	150C313	<b>1.5</b>	1.1		1.3	5.2	1490	6.1	1930	32.4	2.8-3.4
M20432	200C313	<b>2</b>	1.5		1.25	6.5	1990	7.6	2450	44	1.8-2.4
M30432	300C313	<b>3</b>	2.2		1.15	9.2	2880	10.1	3280	58.9	1.3-1.7
M50432	500C313	<b>5</b>	3.7		1.15	15.7	4925	17.5	5650	93	.85-1.25

### Diaphragm Tank Sizing and Pre-Set Pressure Recommendations:

Diaphragm type (captive air) tanks are required on these systems.

**Table 1: Tank Sizing Selection**

Maximum Pump GPM	Recommended Tanks		
	Total Volume	Order No.	or Order No.
10	2	V6P	TP6P
23	4.5	V15P	TP15P
41	8.2	V25P	TP25P
70	13.9	V45	TP45
100	19.9	V60	TP60

Use Total Tank Volume, not drawdown volume, to select the proper tank size. The total tank volume should be approximately 20% of the pump's maximum flow. For example, when using a 10 gpm pump the system requires a minimum 2 gallon (total volume) tank.

The tank sizing recommendations are field proven to prevent objectionable pressure drops on start-up and provide smooth operation for the majority of variable speed pump systems.

Set the tank pressure, while tank is empty of water, to 20 psi below the desired system pressure setting. Ex. for a 50 psi system pressure, charge the tank to 30 psi.



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