

Four-Inch Submersible Pumps



FOR HOME, FARM AND INDUSTRY

Series "4F"

Low, medium and high capacity submersible pumps for home, farm, industry and many other domestic and commercial applications

- Stainless steel or cast iron suction and discharge housings
- Stainless steel pump shell
- Stainless steel hex drive shaft and coupling
- Stainless steel screen
- Corrosion resistant cable guard
- NEMA standard motor mounting ring
- Field replaceable cartridge assembly, cable guard, motor and motor lead wire assembly
- Stainless steel motors with lightning protection - (F&W available up to 2 HP)



**S SERIES, A SERIES AND G SERIES
SUBMERSIBLES**



'S' Commander®
Series — 304 SS
Suction & Discharge

'A' Captain®
Series —
Cast Iron
Suction &
Discharge

S Series —
4" Deepset
Pumps

5 thru 27 GPM - 'A', 'S' and 'G' Series

35 thru 85 GPM - Hi Cap 'A' and 'S' Series

5, 7, 10, 19 & 27 GPM - 'S' Series DEEPSET

For total head of 1500 ft. or less / 2, 3, 5, & 7-1/2 HP



Material Construction



Component Description	Commander® 'S' Series 5, 7, 10, 15, 19 & 27 GPM 1/2 thru 5 HP	Captain® 'A' Series 5, 7, 10, 19 & 27 GPM 1/2 thru 5 HP	Commander® Plus 'S' Series 35, 55 & 85 GPM 1 thru 7-1/2 HP	Captain® Plus 'A' Series 35, 55 & 85 GPM 1 thru 7-1/2 HP
Discharge Head	Stainless Steel, 1-1/4" NPT, safety rope eyelet included	Cast Iron, 1-1/4" NPT, safety rope eyelet included	Stainless Steel, 2" NPT, safety rope eyelets included	Cast Iron, 2" NPT
Check Valve Poppet	Internal removable, with elastomer sealing ring		Check valve not included	
Top Bearing	Closed sintered lead free sleeve bearing		Closed sintered lead free sleeve bearing	Closed sintered lead free sleeve bearing
Pump Shell	Heavy wall stainless steel			
Cable Guard	Stainless steel	Stainless steel or Crush-proof PVC	Stainless steel	Stainless steel or Crush-proof PVC
Staging*	Noryl® impellers and diffusers; stainless steel floating bearing inserts and acetal diffuser plates			
Pump Shaft*	Stainless steel hex shaft with one piece motor-to-shaft coupling			
Motor Bracket	NEMA standard, stainless steel with stainless steel suction screen	NEMA standard, cast iron with stainless steel suction screen	NEMA standard, stainless steel with stainless steel suction screen	NEMA standard, cast Iron with stainless steel suction screen
Motor	All pumps driven by a complete selection stainless steel two wire or three wire motors. (F&W available up to 2 HP).		All pumps driven by a complete selection of stainless steel two wire or three wire motors. (F&W available up to 2 HP). Order motors separately.	
Motor Controls	F&W control boxes required for three-wire single phase motors. Magnetic starters and heaters are required for three phase models. Purchase at your local electrical outlet.			

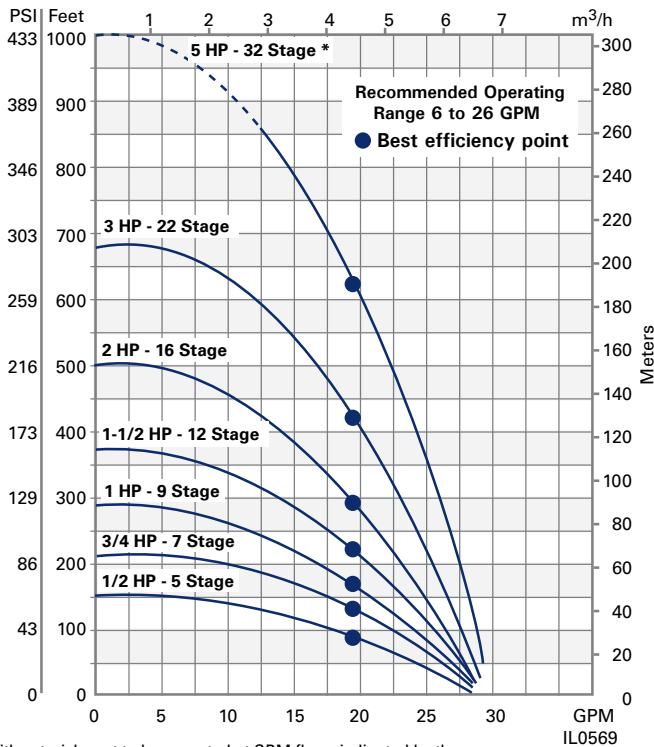
* Replacement cartridge assembly available for select models. Includes all necessary parts to restore pumps to like-new performance. No special tools required. Noryl® is a registered trademark of General Electric.

4" 19 GPM • 1/2 thru 5 HP • 3450 RPM • 60 Cycle

HP Size and Model No.	Stg.	Weight		Disch. Press. PSI	DEPTH TO WATER LEVEL IN FEET																				Max. Pressure					
		Motor Type	Ship Wt.		20	40	60	80	100	120	140	160	180	200	225	250	275	300	325	350	400	450	500	550	600	650	700	800	Ft.	PSI
					CAPACITIES IN GALLONS PER MINUTE																									
1/2 HP 4F19A05 4F19S05	5	1 PH 3 Wire	28	0																								155	67	
		1 PH 2 Wire	28	20	22.0	19.8	17.1	14.0	5.9																					
		1 PH 2 Wire	28	40	16.0	12.2	3.5																							
3/4 HP 4F19A07 4F19S07	7	1 PH 3 Wire	33	0																								215	93	
		1 PH 2 Wire	33	20	24.4	22.9	21.4	19.5	17.5	15.3	12.4	8.6																		
		1 PH 2 Wire	33	40	20.6	18.7	16.6	14.3	11.0	5.5																				
1 HP 4F19A10 4F19S10 4F19G10	9	1 PH 3 Wire	36	0																								283	122	
		1 PH 2 Wire	36	20	25.2	24.0	22.9	21.7	20.4	19.0	17.4	15.6	13.7	11.4	6.2															
		1 PH 2 Wire	36	40	22.5	21.2	19.8	18.4	16.8	15.2	12.8	10.4	5.6																	
1-1/2 HP 4F19A15 4F19S15 4F19G15	12	1 PH 3 Wire	43	0																								375	163	
		1 PH 2 Wire	43	20	25.2	24.4	23.5	22.7	21.7	20.7	19.9	18.9	17.7	16.3	14.3	12.2	9.5	3.6												
		3 PH 3 Wire	39	40	24.2	23.3	22.4	21.4	20.5	19.5	18.5	17.4	16.3	14.9	12.7	9.7	5.7													
2 HP 4F19A20 4F19S20	16	1 PH 3 Wire	59	0																								500	217	
		3 PH 3 Wire	49	20	25.3	24.6	24.1	23.5	22.8	22.2	21.5	20.8	20.1	19.3	18.3	17.2	15.9	14.6	12.9	11.0	5.3									
		3 PH 3 Wire	49	40	23.9	23.3	22.7	22.0	21.3	20.6	19.8	19.1	18.3	17.4	16.3	14.8	13.2	11.3	9.2	6.2										
3 HP 4F19A30 4F19S30	22	1 PH 3 Wire	75	0																								685	298	
		3 PH 3 Wire	75	20	25.3	24.8	24.3	23.9	23.5	23.0	22.5	22.1	21.5	21.0	20.5	19.8	19.2	18.3	17.6	16.8	14.8	12.5	9.3							
		3 PH 3 Wire	75	40	24.2	23.9	23.3	22.8	22.3	21.9	21.4	20.9	20.3	19.8	19.2	18.4	17.7	16.9	16.0	14.9	12.7	9.5	3.3							
5 HP 4F19A50 4F19S50	32	1 PH 3 Wire	117	0																								1000	435	
		3 PH 3 Wire	80	20	25.7	25.3	25.1	24.8	24.5	24.2	23.8	23.5	23.2	22.8	22.5	22.2	21.7	20.8	20.4	19.4	18.4	17.3	16.2	14.7	12.9	11.2				
		3 PH 3 Wire	80	40	26.0	25.8	25.5	25.2	24.8	24.5	24.2	23.8	23.5	23.2	22.8	22.5	22.2	21.7	20.8	20.4	19.4	18.4	17.3	16.2	14.7	12.9	11.2			

NOTE: Pipe friction loss in drop pipe is not included in chart above.
1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

19 GPM • 1/2 - 5 HP



* Pumps marked with asterisks not to be operated at GPM flows indicated by the dotted line.

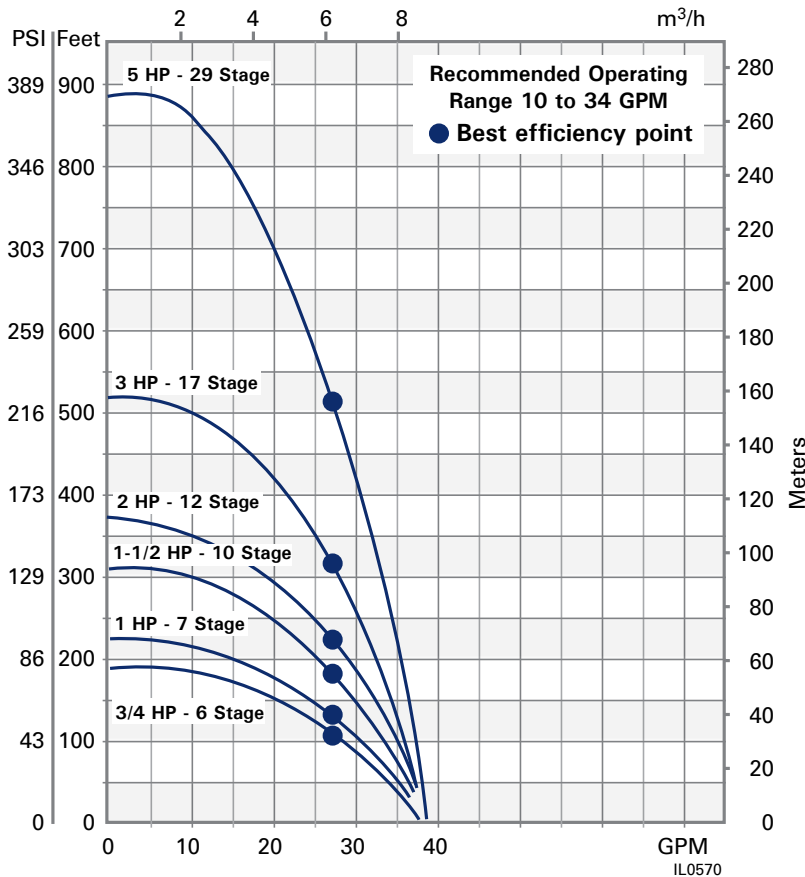


4" 27 GPM • 3/4 thru 5 HP • 3450 RPM • 60 Cycle

HP Size And Model No.	Stages	WEIGHT		Disch. Press. PSI	DEPTH TO WATER LEVEL IN FEET																				Max. Pressure						
		Motor Type	Shp. Weight		20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	550	600	650	700	750	800	Ft.	PSI
					CAPACITIES IN GALLONS PER MINUTE																										
3/4 HP 4F27A07 4F27S07	6	1 PH	33	0																									180	78	
		3 Wire		20	32	29	26	23	20	24	21	16	5																		
1 HP 4F27A10 4F27S10 4F27G10	7	1 PH	35	0																									215	93	
		3 Wire		20	33	31	29	26	24	20	17	10	18	13																	
1-1/2 HP 4F27A15 4F27S15 4F27G15	10	1 PH	43	0																									305	132	
		3 Wire		20	33	32	30	29	27	25	23	21	19	16	11	22	20	17	14	6											
2 HP 4F27A20 4F27S20	12	1 PH	44	0																									360	156	
		3 Wire		20	34	33	32	30	29	27	25	24	22	20	18	15	10	9													
3 HP* 4F27A30 4F27S30	17	1 PH	73	0																									515	223	
		3 Wire		20	34	33	33	32	31	30	29	28	27	26	25	24	22	21	17	11	16	9									
5 HP* 4F27A50 4F27S50	29	1 PH	116	0																									880	380	
		3 Wire		20	34	34	33	33	32	31	30	29	28	27	26	24	22	21	17	11	29	27	26	24	22	20	18	15			12
		3 PH	80	40																											
		3 Wire		60	32	32	31	31	30	29	28	27	26	25	24	22	21	17	11	28	26	24	22	21	18	16	12				

NOTE: Pipe friction loss in drop pipe is not included in chart above.
 *For 3 HP and above, refer to motor manufacturer's handbook for proper flow rates to cool motor.
 1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

27 GPM • 3/4 - 5 HP

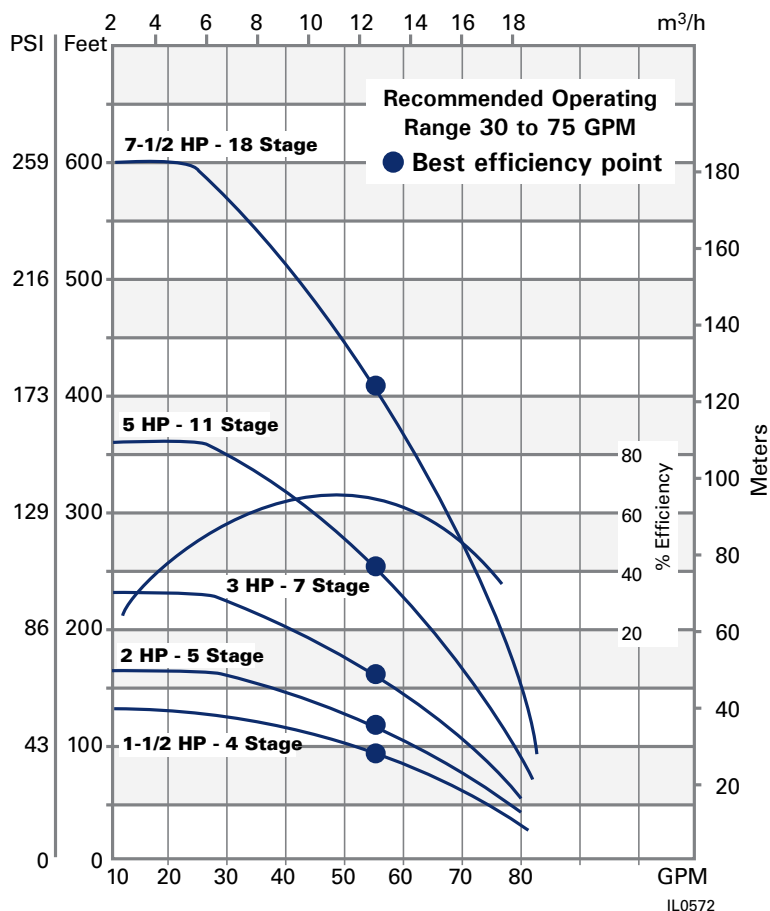


4" 55 GPM • 1 1/2 thru 7 1/2 HP • 3450 RPM • 60 Cycle

HP Size and Model No.	Stages	Phase	Weight		Discharge Pressure PSI	DEPTH TO WATER LEVEL IN FEET																Maximum Pressure				
			Pump End	Motor End		20	40	60	80	100	120	140	160	180	200	220	240	260	300	350	400	450	500	550	Ft.	PSI
						CAPACITIES IN GALLONS PER MINUTE																				
1-1/2 HP 4F55A15 4F55S15	4	1 3	12	28	0																			135	58	
20			70	60	71	62	50	36																		
40			42	23	47	33																				
60			25		60																					
2 HP 4F55A20 4F55S20	5	1 3	14	30	0																			165	71	
20			74	68	75	69	61	51	42	29																
40			56	45	59	50	38	15																		
60			28		30																					
3 HP* 4F55A30 4F55S30	7	1 3	16	52	0																			235	101	
20					75	70	75	71	66	61	55	47	39	31												
40					63	57	65	59	53	46	38	28														
60			43		48																					
5 HP* 4F55A50 4F55S50	11	1 3	19	69	0																			365	158	
20							73	70	74	71	68	64	61	57	53	44	30									
40							66	63	67	64	60	56	52	47	42	31										
60			19	53																						
7-1/2 HP* 4F55A75 4F55S75	18	3	28	69	0																			600	259	
20																										
40																										
60																										

NOTE: Pipe friction loss in drop pipe is not included in chart above.
 *For 3 HP and above, refer to motor manufacturer's handbook for proper flow rates to cool motor.
 1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

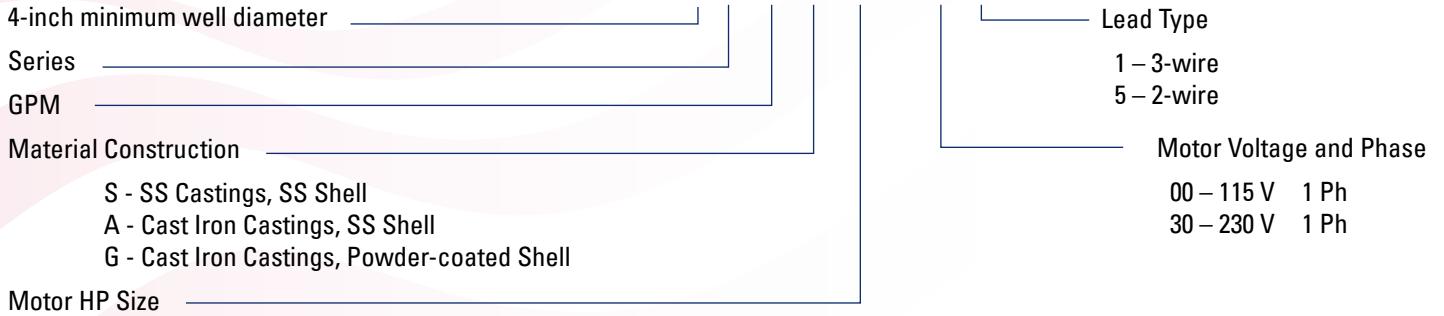
55 GPM • 1 1/2 - 7 1/2 HP



Model Number Code

5 thru 27 GPM

4 F 10 A 05 - 30 1

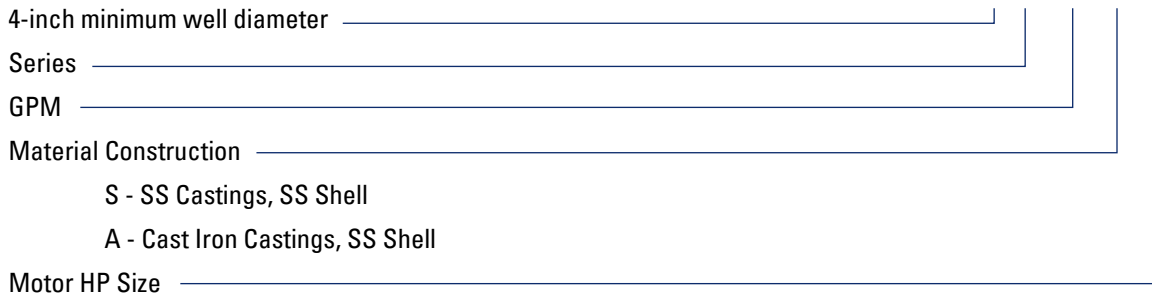


1/2 - 1-1/2 HP Single phase pump and motor assembly includes pump/motor unit with motor leads.
Order control box for 3-wire units separately.
On 2 - 7-1/2 HP and all 3 phase units, order pump, motor and control box separately. Magnetic starters must be purchased locally.
Lead wire assembly included with motor.

1/2 thru 2 HP, 1 PH pumps feature Flint & Walling motors.

35, 55 & 85 GPM

4 F 35 A 20



On 35, 55 & 85 GPM units order pump, motor and control box separately. Magnetic starters must be purchased locally.
Lead wire assembly included with motor.

DOE Compliance

PUMP MODEL	Impeller Dia.	P.E.I. _{CL}
4F35	3.072"	0.89
4F55	3.075"	0.93
4F85	3.070"	0.99



Motor and Control Box Chart

HP	Voltage & Phase	Motor Type	F&W Motor Thrust Rating	F&W Motor Order No.	F&W Control Box Order Number	Motor Order Number	Control Box Order Number
1/2	115V/1PH	3-Wire	700#	137426	022875	M137426	127185
	230V/1PH	3-Wire	700#	137428	022876	M137428	127189
	115V/1PH	2-Wire	700#	137412	N/A	M137412	N/A
	230V/1PH	2-Wire	700#	137414	N/A	M137414	N/A
3/4	230V/1PH	3-Wire	700#	137430	022877	M137430	127197
	230V/1PH	2-Wire	700#	137416	N/A	M137416	N/A
1	230V/1PH	3-Wire	700#	137432	022878	M137432	126319
	230V/1PH	2-Wire	700#	137418	N/A	M137418	N/A
1 1/2	230V/1PH	3-Wire	700#	137434	022879	M137434	133589
	230V/1PH	2-Wire	700#	137420	N/A	M137420	N/A
	200V/3PH	3-Wire	--	N/A	N/A	M137457	N/A
	230V/3PH	3-Wire	--	N/A	N/A	M137458	N/A
	460V/3PH	3-Wire	--	N/A	N/A	M137460	N/A
2	230V/1PH	3-Wire	700#	137435	025242	M137435	137224+ 126321++
	200V/3PH	3-Wire	--	N/A	N/A	M137461	N/A
	230V/3PH	3-Wire	--	N/A	N/A	M137462	N/A
	460V/3PH	3-Wire	--	N/A	N/A	M137464	N/A
3	230V/1PH	3-Wire	--	N/A	025243	M139422	136800+ 126322++
	200V/3PH	3-Wire	--	N/A	N/A	M139423	N/A
	230V/3PH	3-Wire	--	N/A	N/A	M139424	N/A
	460V/3PH	3-Wire	--	N/A	N/A	M139425	N/A
5	230V/1PH	3-Wire	--	N/A	025244	M137456	135269+ 137225++
	200V/3PH	3-Wire	--	N/A	N/A	M137469	N/A
	230V/3PH	3-Wire	--	N/A	N/A	M137470	N/A
	460V/3PH	3-Wire	--	N/A	N/A	M137472	N/A
7 1/2	200V/3PH	3-Wire	--	N/A	N/A	M137473	N/A
	230V/3PH	3-Wire	--	N/A	N/A	M137474	N/A
	460V/3PH	3-Wire	--	N/A	N/A	M137476	N/A

N/A Not available

+ Deluxe control box – includes magnetic contactor. Recommended for water systems which utilize pressure switch.

++ Standard control box.



Deep Set Submersible Pumps

FOR EXTREME DEEP WELL APPLICATIONS



- 1-1/4" NPT stainless steel discharge and NEMA faced mounting ring
- Integral removable check valve with elastomer sealing ring
- Stainless steel pump shell, cable guard & suction screen
- Steel intermediate connector
- Thermoplastic impellers and diffusers
- Stainless steel hex drive shaft and coupling
- Selection of stainless steel motors - high thrust motors required on all deep set submersible pump ends

5, 7, 10, 19 & 27 GPM

For total head of 1500 ft. or less

2, 3, 5, & 7-1/2 HP



**S SERIES 4"
DEESET PUMPS**



Deep Set Submersible Pumps

MODEL SPECIFICATIONS

Pump End Model Number	Motor Required		Number of Stages	Max. Head Ft.	Max. Head PSI	Flow Range GPM*	Overall Pump Length
	HP	Thrust Rating					
4F05S20	2	1500#	42	1108	480	2-9	43.7
4F05S30	3	900#	60	1593	690	2-9	57.8
4F07S30	3	900#	42	1293	560	2-13	43.7
4F10S50	5	1500#	52	1605	695	3-15	56.7
4F19S75	7-1/2	1500#	46	1420	615	6-26	55.4
4F27S75	7-1/2	1500#	42	1282	555	10-34	53.2

For motor lengths, call 1-800-742-5044.

*Refer to motor manufacturer's handbook for proper flow rates to cool motor based on well size.

Component Description	Deepset 'S' Series 5, 7, 10, 19 & 27 GPM 2 through 5 HP
Discharge Head	Stainless steel, 1-1/4 in NPT, safety rope eyelet included
Check Valve Poppet	Internal removable, with elastomer sealing ring
Top Bearing	Closed sintered lead free sleeve bearing
Intermediate Connector	Rigid Steel
Pump Shell	Heavy wall stainless steel
Cable Guard	Stainless Steel
Staging*	Noryl® impellers and diffusers; stainless steel floating bearing inserts and acetel diffuser plates
Pump Shaft*	Stainless steel hex shaft with one piece motor-to-shaft coupling
Motor Bracket	NEMA standard, stainless steel with stainless steel suction screen
Motor	Selection of stainless steel motors - high thrust motors required on all deep set submersible pump ends. Order motors separately.
Motor Controls	Control boxes required for three-wire single phase motors. Magnetic starters and heaters are required for three phase models. Purchase at your local electrical outlet.

* Replacement cartridge assembly available for select models. Includes all necessary parts to restore pumps to like-new performance. No special tools required.

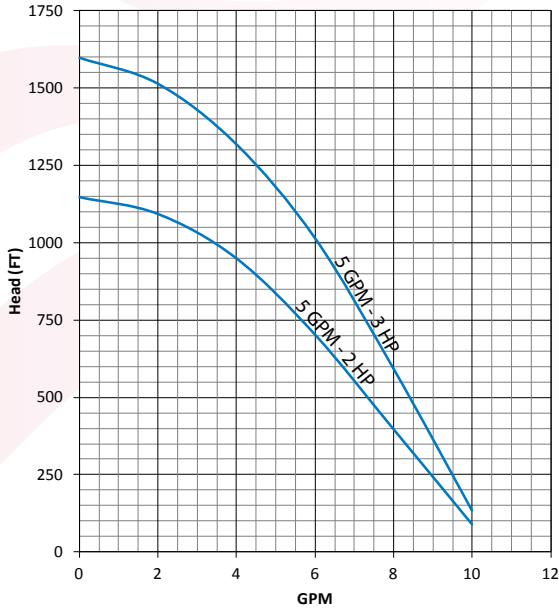
Noryl® is a registered trademark of General Electric.



Deep Set Submersible Pumps

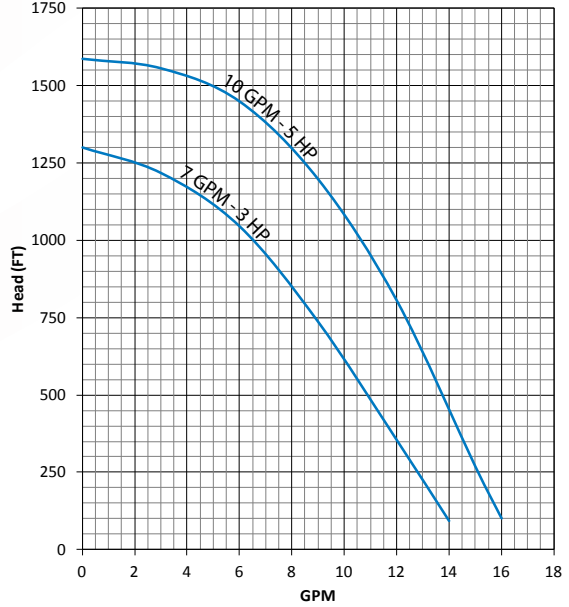
PERFORMANCE CURVES

5 GPM DEEP SET SUBMERSIBLE



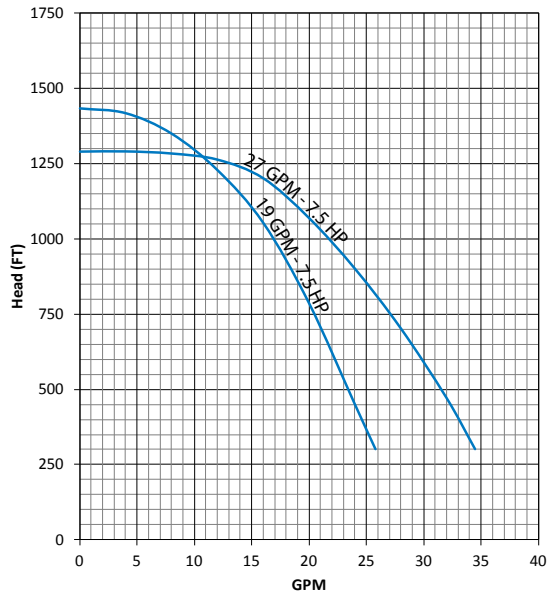
IL1697

7 & 10 GPM DEEP SET SUBMERSIBLE



IL1698

19 & 27 GPM DEEP SET SUBMERSIBLE



IL1699

External line check valve (1-1/4" or larger) required every 100 feet of vertical drop pipe. 900# or 1500# thrust motors required on all deep set submersible pump ends.