



# RS Submersible Pumps

## Red Jacket Series

60 Hz standard capacity 4" pumps

# Introduction

The Red Jacket RS Series 4" submersible pump is engineered for reliable performance in residential and small municipal water systems. Featuring a corrosion-resistant stainless steel casing and a floating impeller stack design, it effectively handles sand and abrasive materials, ensuring durability and longevity. Its crimped construction enhances strength, preventing separation even under harsh conditions. Additionally, the built-in, easily removable check valve simplifies maintenance, making the RS Series a robust and user-friendly solution for consistent water supply needs.

## Features

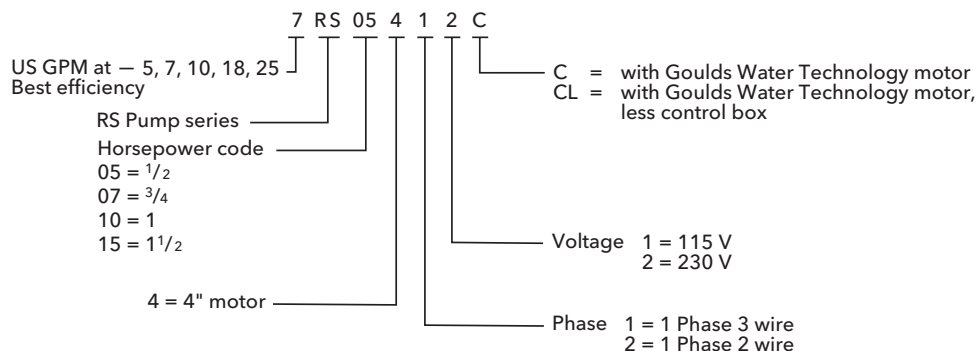
- Powered by Xylem's Goulds Water Technology 4" motors for dependable operation and long service life.
- Field proven floating impeller stack design for superior sand and abrasive handling and durability.
- Quad Lock Technology features four (4) roll formed grooves that provide durability and strength. Tested to exceed the strength of poly and PVC pipes.
- Glass filled engineered composite impellers for abrasion resistance and durability.
- Built-in check valve screws into discharge head from the top, easily removed for drain-back systems or replacement without disassembling the pump.
- Spring loaded, o-ring poppet design for positive seal in all conditions.
- Nylon motor adapter for strength and corrosion resistance.
- Stainless steel hex design shafts, shaft couplings, casings and stage bowls inhibit corrosion.
- All engineered composite components are non-toxic, non-leaching, FDA compliant materials.
- Complete pump/motor assemblies are CSA listed, CSA/ CUS approved motors are available in 2-wire and 3-wire single phase designs.
- Maximum allowable pressure - 300 psi

## Materials of construction

Part name	Material
Discharge head	Glass filled engineered composite
Check valve poppet	Delrin®
Check valve seal	BUNA, FDA compliant
Check valve retaining ring	AISI 302 SS
Bearing	Proprietary engineered polymer
Shaft retaining ring	AISI 301 SS
Diffuser	Glass filled engineered composite
Impeller	Glass filled engineered composite
Bowl	AISI 304 SS
Shim	AISI 304 SS
Screws – cable guard	AISI 304 SS
Motor adapter	Glass filled engineered composite
Casing	AISI 304 SS
Shaft	AISI 304 SS
Coupling	AISI 304 SS, Powder metal
Cable guard	AISI 304 SS
Optional wrap around suction strainer	
Order 7K3356 (quantity 1) • Order 7K3361 (quantity 50)	



## Nomenclature



# Specifications

## Water end data

Model	Order no.	Req. HP	Stages	Weight lbs (kg)	Length in (mm)
5RS	5RS05	½	12	5.5 (2.49)	15.7 (398.8)
	5RS07	¾	15	6.5 (2.95)	17.8 (452.1)
	5RS10	1	20	8.1 (3.67)	21.2 (538.5)
7RS	7RS05	½	10	4.9 (2.22)	14.6 (370.8)
	7RS07	¾	13	5.9 (2.68)	16.7 (424.2)
	7RS10	1	17	7.2 (3.27)	19.6 (497.8)
10RS	10RS05*	½	10	13.6 (6.17)	12.3 (312.4)
	10RS07*	¾	14	16.4 (7.44)	14.4 (365.8)
	10RS10*	1	16	17.7 (8.03)	15.7 (398.8)
	10RS15	1½	17	18.4 (8.35)	19.2 (487.7)
18RS	18RS07	¾	6	3.8 (1.72)	12.6 (320)
	18RS10	1	8	4.5 (2.04)	14.3 (363.2)
	18RS15	1½	11	5.6 (2.54)	16.8 (426.7)
25RS	25RS10	1	7	4.3 (1.95)	14.0 (355.6)
	25RS15	1½	9	5.1 (2.31)	15.9 (403.9)

## 2-wire models with Goulds Water Technology motor

Model	Order no.	HP	Stages	Volts	2-Wire CP
5RS	5RS05421C	½	12	115	M05421
	5RS05422C	½	12	230	M05422
	5RS07422C	¾	15	230	M07422
	5RS10422C	1	20	230	M10422
7RS	7RS05421C	½	10	115	M05421
	7RS05422C	½	10	230	M05422
	7RS07422C	¾	13	230	M07422
	7RS10422C	1	17	230	M10422
10RS	10RS05421C*	½	10	115	M05421
	10RS05422C*	½	10	230	M05422
	10RS07422C*	¾	14	230	M07422
	10RS10422C*	1	16	230	M10422
	10RS15422C	1½	17	230	M15422
18RS	18RS07422C	¾	6	230	M07422
	18RS10422C	1	8	230	M10422
	18RS15422C	1½	11	230	M15422
25RS	25RS10422C	1	7	230	M10422
	25RS15422C	1½	9	230	M15422

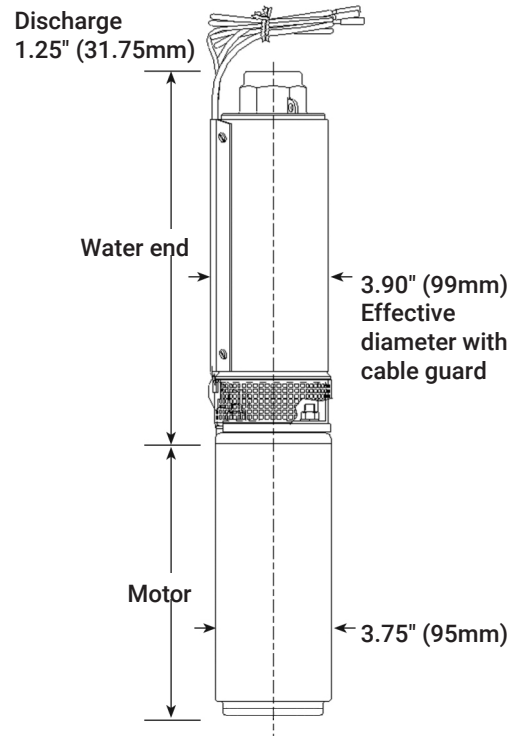
\* High Head Hydraulic Design

## 3-wire models with Goulds Water Technology motor

Model	Order no.	HP	Stages	Volts	3-Wire CP
5RS	5RS05411C	½	12	115	M05411
	5RS05412C	½	12	230	M05412
	5RS07412C	¾	15	230	M07412
	5RS10412C	1	20	230	M10412
7RS	7RS05411C	½	10	115	M05411
	7RS05412C	½	10	230	M05412
	7RS07412C	¾	13	230	M07412
	7RS10412C	1	17	230	M10412
10RS	10RS05411C*	½	10	115	M05411
	10RS05412C*	½	10	230	M05412
	10RS07412C*	¾	14	230	M07412
	10RS10412C*	1	16	230	M10412
	10RS15412C	1½	17	230	M15412
18RS	18RS07412C	¾	6	230	M07412
	18RS10412C	1	8	230	M10412
	18RS15412C	1½	11	230	M15412
25RS	25RS10412C	1	7	230	M10412
	25RS15412C	1½	9	230	M15412

## Generation II – 2-wire & 3-wire weights and dimensions

Type	Goulds order no.	HP	Volts	Length in. (mm)	Weight lbs (kg)
2-Wire	M05421	.5	115	10.5 (267)	18 (8.2)
	M05422	.5	230	10.5 (267)	18 (8.2)
	M07422	.75		11.9 (302)	22 (9.7)
	M10422	1		12.5 (318)	24 (10.5)
	M15422	1.5		14.2 (361)	28 (12.4)
3-wire	M05411	.5		115	9.6 (244)
	M05412	.5	230	9.2 (234)	17 (7.6)
	M07412	.75		10.3 (262)	20 (9.0)
	M10412	1		11.2 (284)	22 (10.0)
	M15412	1.5		12.8 (325)	26 (11.8)
	M20412	2		15.1 (384)	31 (14.1)
	M30412	3		18.3 (465)	40 (18.1)
	M50412	5		27.7 (704)	70 (31.7)





# Model 10RS

Horsepower range ½ – 1½, Recommended range 3 – 16 gpm, 60 Hz, 3450 rpm

Pump model	HP	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	420	440	460	
10RS05	½	0			15.7	14.9	14.1	13.3	12.4	11.4	10.4	9.3	8.0	6.3	3.9											
		20	15.4	14.7	13.9	13.0	12.1	11.1	10.1	8.9	7.5	5.7	2.9													
		30	14.6	13.8	12.9	12.0	11.0	9.9	8.7	7.3	5.3	2.3														
		40	13.6	12.8	11.8	10.8	9.7	8.5	7.0	4.9	1.7															
		50	12.6	11.7	10.6	9.5	8.3	6.8	4.5	1.0																
		60	11.5	10.5	9.3	8.1	6.5	4.1	0.2																	
Shut-off PSI			113	105	96	87	79	70	61	53	44	35	27	18	9	1										
10RS07	¾	0				15.7	15.2	14.6	14.0	13.4	12.7	12.0	11.4	10.8	10.1	9.5	8.7	7.7	6.4	4.6	2.1					
		20	16.0	15.5	15.0	14.5	13.8	13.2	12.5	11.8	11.2	10.6	9.9	9.2	8.4	7.3	5.9	3.9	1.2							
		30	15.5	15.0	14.4	13.7	13.1	12.4	11.7	11.1	10.5	9.8	9.1	8.3	7.1	5.6	3.5	0.7								
		40	14.9	14.3	13.6	12.9	12.3	11.6	11.0	10.4	9.7	9.0	8.1	6.9	5.3	3.1	0.2									
		50	14.2	13.5	12.8	12.2	11.5	10.9	10.3	9.6	8.9	8.0	6.7	5.0	2.7											
		60	13.4	12.7	12.1	11.4	10.8	10.2	9.5	8.7	7.8	6.5	4.7	2.3												
Shut-off PSI			161	152	143	135	126	118	109	100	92	83	74	66	57	48	40	31	22	14	5					
10RS10	1	0					15.7	15.2	14.8	14.4	14.0	13.6	13.2	12.7	12.1	11.4	10.7	10.0	9.3	8.6	7.9	7.0	5.7	3.8	0.6	
		20		16.0	15.5	15.0	14.6	14.3	13.9	13.5	13.0	12.5	11.9	11.2	10.5	9.8	9.1	8.4	7.6	6.7	5.2	2.9				
		30	16.0	15.4	15.0	14.6	14.2	13.9	13.4	13.0	12.4	11.8	11.1	10.4	9.7	9.0	8.3	7.5	6.5	4.9	2.5					
		40	15.3	14.9	14.5	14.2	13.8	13.4	12.9	12.3	11.6	11.0	10.3	9.6	8.9	8.2	7.4	6.3	4.6	2.0						
		50	14.8	14.5	14.1	13.7	13.3	12.8	12.2	11.5	10.9	10.1	9.5	8.8	8.1	7.2	6.1	4.3	1.5							
		60	14.4	14.1	13.7	13.2	12.7	12.1	11.4	10.7	10.0	9.4	8.7	7.9	7.1	5.8	3.9	0.9								
Shut-off PSI			192	184	175	166	158	149	140	132	123	114	106	97	88	80	71	62	54	45	36	28	19	10	2	

## Model 18RS

Horsepower range  $\frac{3}{4}$  –  $1\frac{1}{2}$ , Recommended range 6 – 28 gpm, 60 Hz, 3450 rpm

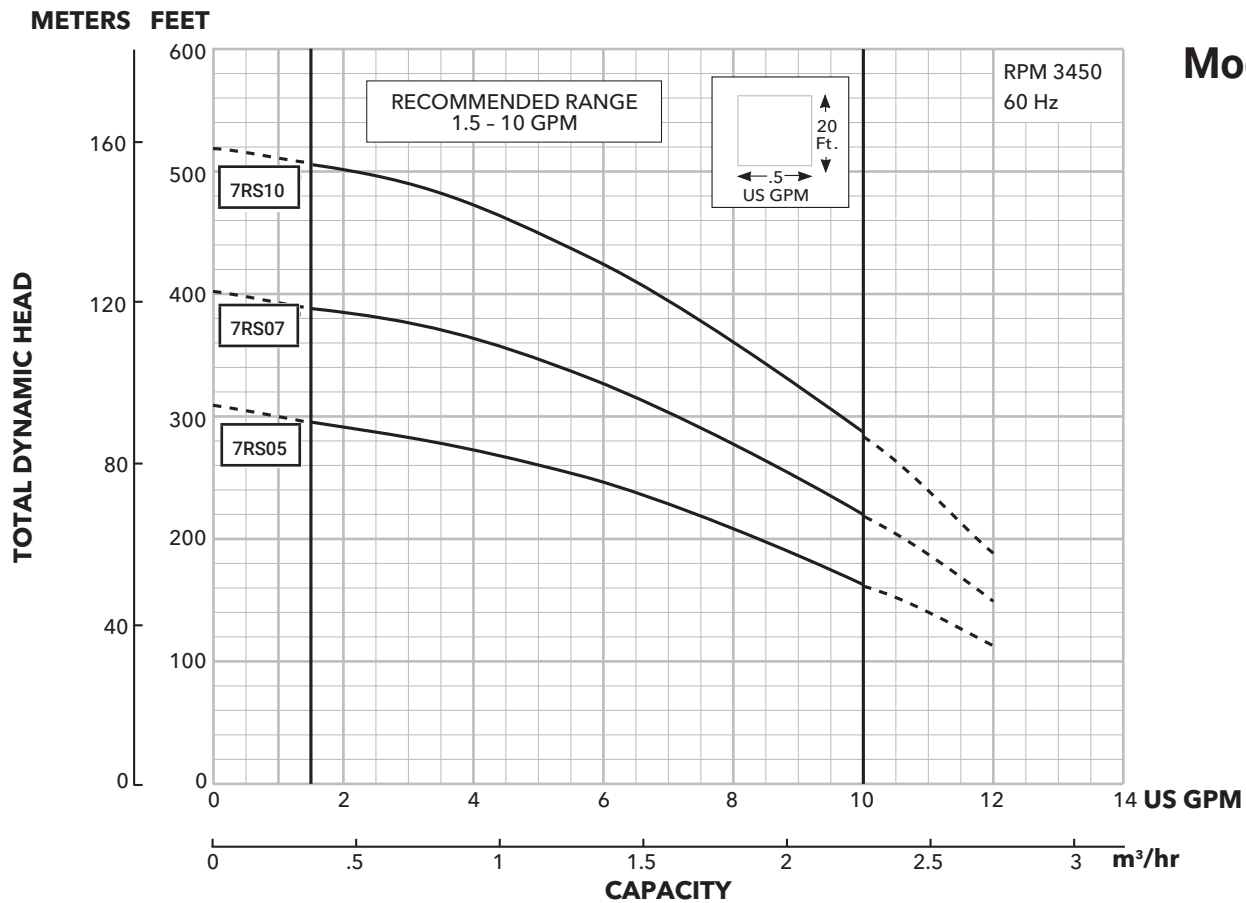
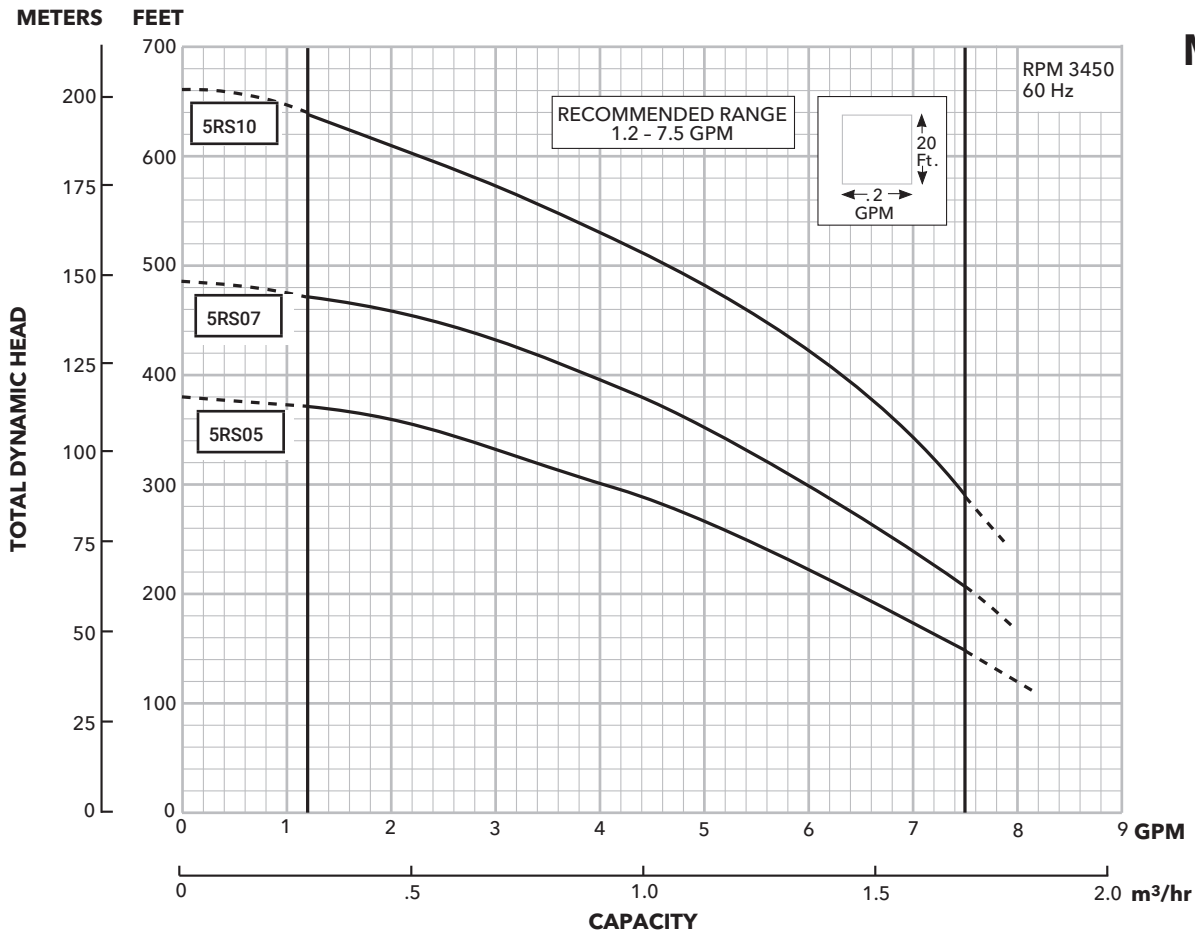
Pump model	HP	PSI	Depth to water in feet/ratings in US GPM (Gallons per minute)															
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	
18RS07	$\frac{3}{4}$	0			28.2	26.5	24.0	21.0	17.9	13.5								
		20	27.7	25.9	23.0	20.0	16.5	10.8										
		30	25.0	22.0	18.8	15.7	9.5											
		40	22.2	18.9	15.1	9.0												
		50	18.4	15.0	7.5													
		60	13.5	5.0														
Shut-off PSI			74	66	58	49	40	32	23	14								
18RS10	1	0					27.0	25.5	23.6	21.2	18.8	15.9	12.0					
		20		28.0	26.6	25.1	22.7	20.0	17.6	14.0	10.0							
		30	27.9	26.1	24.3	22.2	19.8	17.1	13.8	8.3								
		40	26.0	24.1	22.0	19.7	17.0	13.1	8.0									
		50	24.0	22.0	19.1	16.5	13.0	7.1										
		60	21.0	18.6	15.8	12.0												
Shut-off PSI			103	94	86	77	68	60	51	42	34	25	16					
18RS15	$1\frac{1}{2}$	0						28.4	27.2	26.0	24.8	23.0	21.4	19.6	17.5	15.0	12.1	
		20					27.8	26.8	25.4	24.0	22.2	20.6	18.8	16.7	14.0	10.0		
		30			27.7	26.5	25.3	23.8	22.0	20.2	18.5	16.1	13.5	10.0				
		40		27.5	26.3	25.0	23.6	22.0	20.1	18.1	16.0	13.1	9.5					
		50	27.6	26.4	25.0	23.4	21.8	20.0	18.0	15.5	13.0	9.2						
		60	26.0	24.6	23.0	21.2	19.5	17.5	15.0	12.0	7.9							
Shut-off PSI			143	134	126	117	108	100	91	82	74	65	56	48	39	30	22	

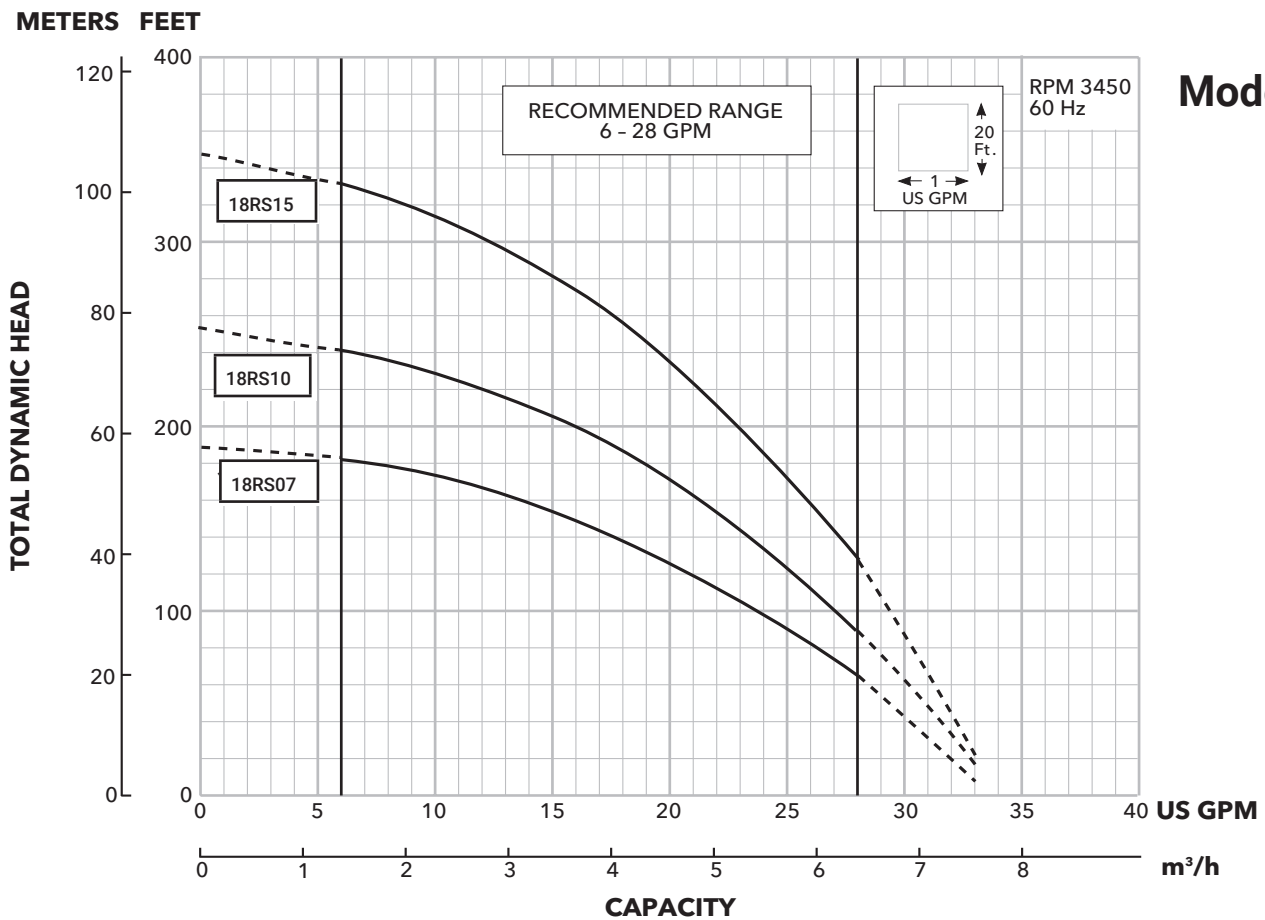
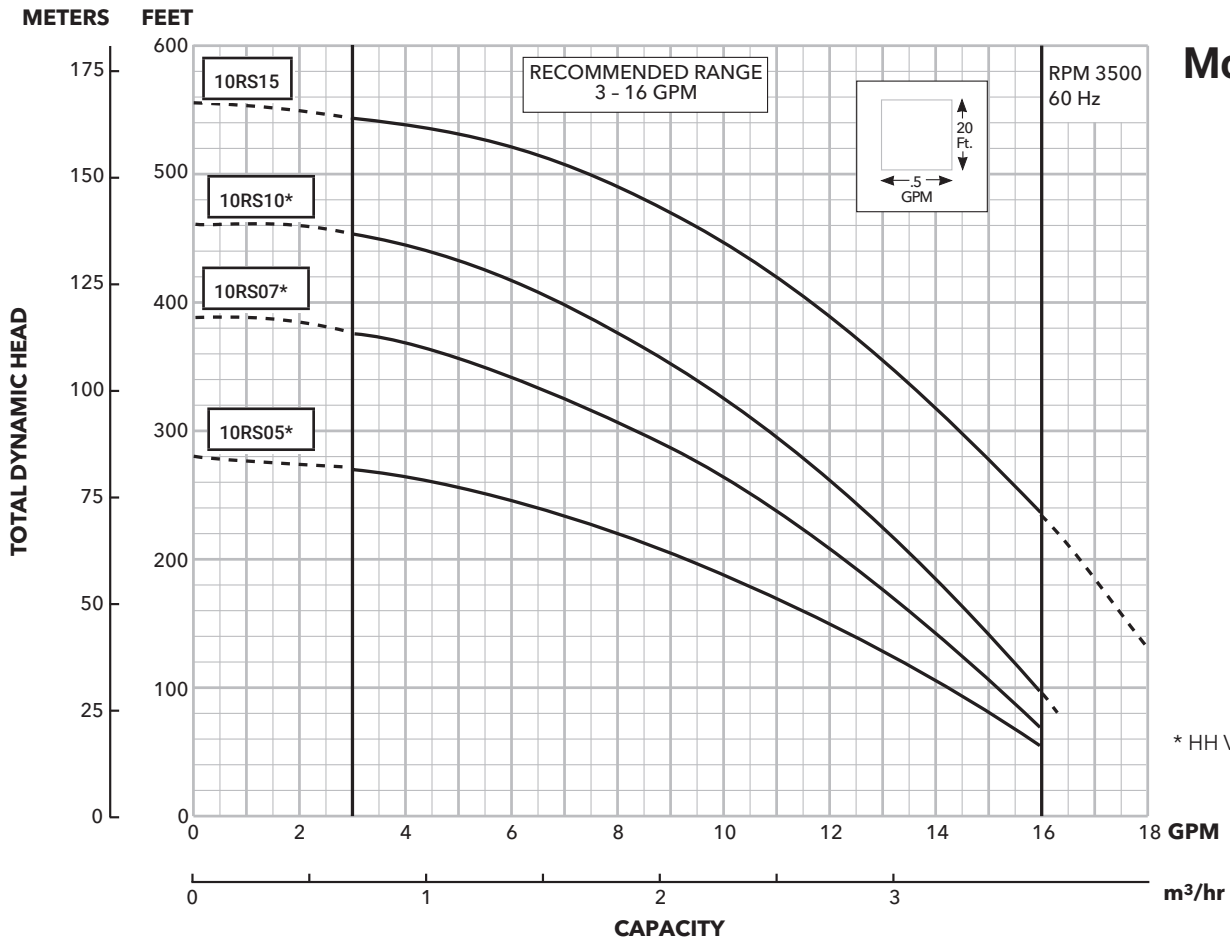
## Model 25RS

Horsepower range 1, Recommended range 8 – 33 gpm, 60 Hz, 3450 rpm

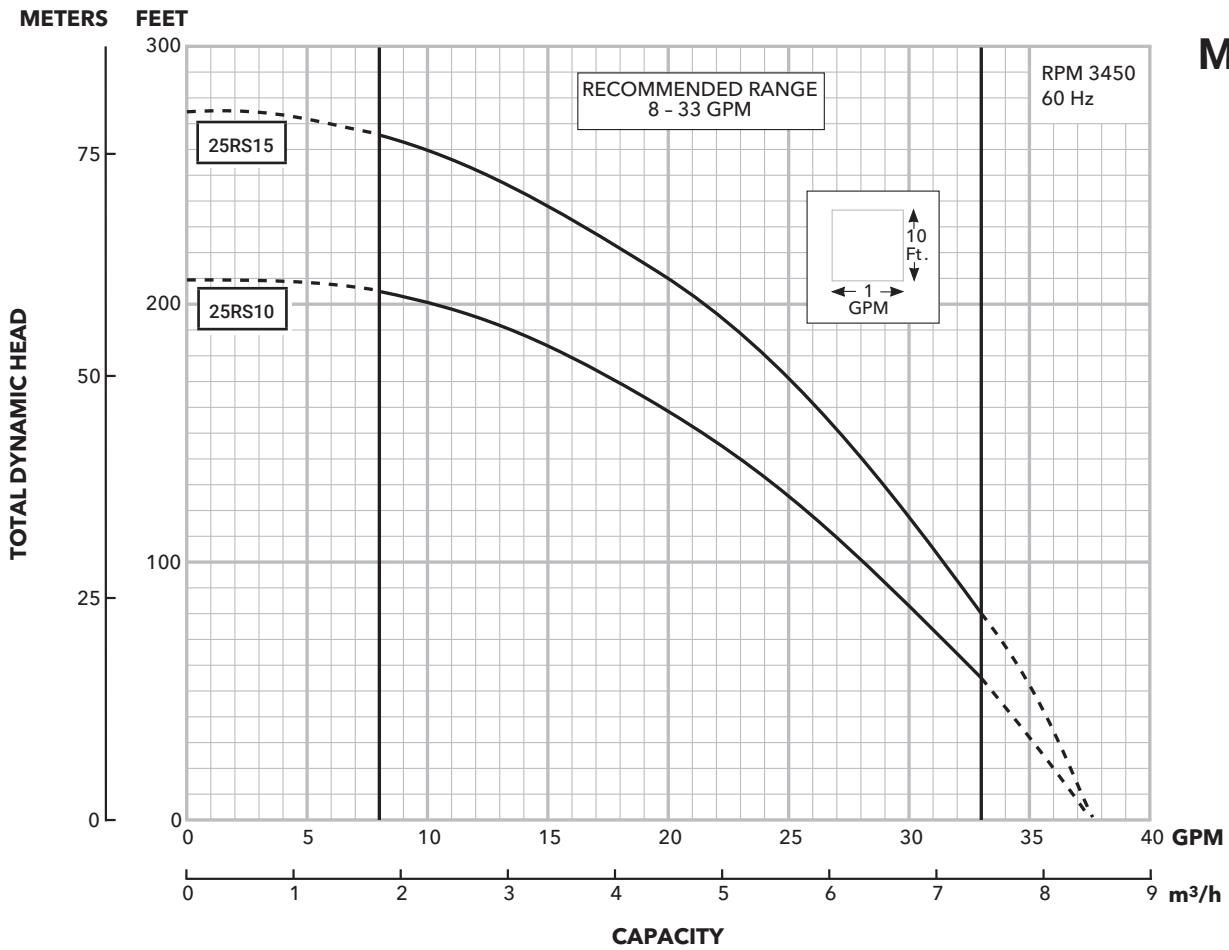
Pump model	HP	PSI	Depth to water in feet/ratings in GPM (Gallons per minute)															
			20	40	60	80	100	120	140	160	180	200	220	240	260			
25RS10	1	0			31.5	29.3	27.2	24.7	22.8	18.9	15.0	10.7						
		20	30.8	29.1	26.7	24.4	21.3	18.4	14.6	7.8								
		30	28.7	26.4	24.3	21.0	17.5	13.6										
		40	26.3	24.2	20.9	17.4	13.5											
		50	23.6	20.4	17.0	12.6												
		60	19.4	15.7	10.7													
Shut-off PSI			80	72	63	54	47	38	29	21	13	4						
25RS15	$1\frac{1}{2}$	0				32.0	30.8	29.4	27.9	26.1	24.1	21.3	19.2	16.5	11.0			
		20		31.6	30.3	28.7	27.2	25.2	23.1	20.4	17.6	14.4	7.8					
		30	31.5	30.1	28.6	26.8	24.8	22.5	20.3	17.4	13.6							
		40	30.0	28.5	26.7	24.7	22.4	20.2	17.2	13.2								
		50	28.1	26.4	24.3	22.2	19.8	16.7	12.6									
		60	26.1	24.1	21.3	19.2	16.0	10.7										
Shut-off PSI			108	100	91	82	75	66	57	49	41	32	24	16	7			

# Performance curves





# Model 25RS



## Notes



Learn more about  
RS series



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