



# FPS

# SP FAMILY SINGLE-STAGE SPLIT CASE

SP - HORIZONTAL SPLIT CASE  
V-SP - VERTICAL SPLIT CASE

The SP Split Case family of pumps are designed for nearly any application and the harshest conditions. Providing versatility to adjust to your job requirements while providing you the long life and ease of maintenance you expect. Bearings and housings can be inspected and replaced without breaking into the pump cavity. This series also features a completely removable and replaceable packing housing and vortex suppressor assuring the best performance over the extended life this product offers.



# SP & V-SP SERIES SPLIT CASE PUMPS

## FEATURES

- Bronze Impeller: dynamically balanced, double suction, enclosed
- 420 Stainless Steel Shaft: oversized to minimize deflection
- Bronze case wear rings standard, API stepped design
- Heavy Duty ASTM A48 Class 30 Cast Iron casing
- 125# suction and discharge flange with 250# Cast dimensions
- Drilled and tapped suction and discharge flanges
- Thru-Bore casing allows quick and easy removal of the rotor assembly including both stuffing boxes
- Removable and replaceable packing housing and vortex suppressor
- Upgraded PTFE impregnated graphite packing standard in all models
- 50,000+ hour minimum L10 bearing life; many over 100,000 hours
- Suction and discharge gauge connections
- Available in other metallurgies
- V-SP Vertical Series is equipped with a lubricated bottom radial bearing and a high-thrust top bearing to handle additional hanging weight of the rotating assembly



## APPLICATIONS

- Pressure Boosting
- Water Supply and Treatment
- Cooling Towers/Circulating Water
- Raw Water Transfer
- Dewatering and Irrigation
- Cargo Loading and Unloading

## SPECIFICATIONS

- Flows to 22,000+ gpm (5,000 m<sup>3</sup>/hr)
- Heads to 550 feet (168 m)
- Temperatures range of 32–300 °F (0–149 °C)
- Pressure to 238 psi (1,640 kPa)
- Speed ranges of 500–3,600 rpm
- Sizes of 2.5x3-10 to 20x24-22

## MATERIALS OF CONSTRUCTION

Description	Standard Configuration		Optional Configurations	
	Bronze Fitted	316 SS Fitted	All 316 SS	
Casing	Cast Iron	Cast Iron	316 SS	
Stuffing Box	Cast Iron	Cast Iron	316 SS	
Impeller	C952 Bronze	316 SS	316 SS	
Casing Wear Ring	C836 Bronze	Nitronic 60	Nitronic 60	
Shaft	420 SS	420 SS	420 SS	
Shaft Sleeve	C952 Bronze	316 SS	316 SS	
Bearing Cap	Cast Iron	Cast Iron	Cast Iron	
Bearing Housing	Cast Iron	Cast Iron	Cast Iron	
Packing*	PTFE / Graphite			
Mechanical Seal*	Carbon vs. Silicon Carbide / FKM / 304 SS			
Impeller Wear Ring**	Bronze	316 SS	316 SS	

\* Optional materials available; refer to factory for requested materials  
 \*\* Optional item; not included as standard

# SP & V-SP SERIES SPLIT CASE PUMPS

## CONSTRUCTION FEATURES

### 1. Impellers

- One-piece bronze or other specified alloy
- Dynamically balanced prior to assembly
- Machined to accept external shaft sleeve o-ring

### 2. Casing

- Heavy-duty ASTM A48 class 30 cast iron
- Heavy wall allows for generous corrosion allowance with a 20-year design life
- Unique Thru-Bore lineboring machining operation allows the entire rotor assembly, including seal chambers, to be removed as a single unit
- Suction and discharge flanges are cast to 250# dimensions and drill for 125# connection standard
- Studded construction make for a quick assembly process

### 3. Shaft Sleeves

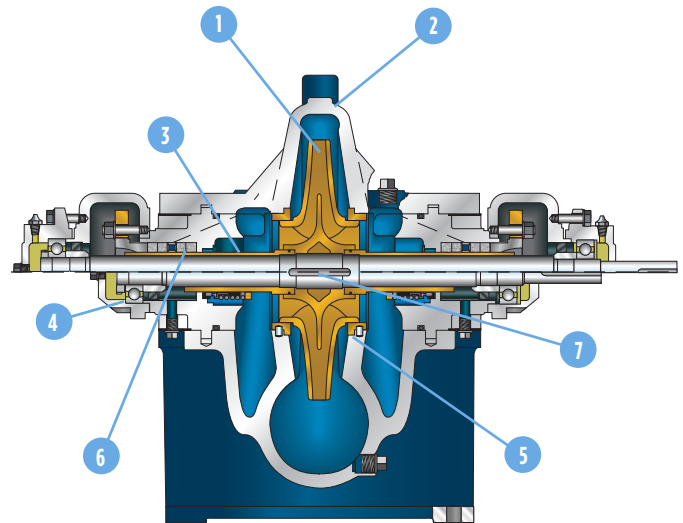
- Easily replaceable, heavy wall bronze shaft sleeve standard
- Exclusive external o-ring groove allows for damage free installation

### 4. Bearing Housing

- Bearing housing design allows for the complete removal of the bearing housing without removing casing top
- Uses interchangeable single row, deep groove ball bearings standard
- Oil lip seal keeps contaminants out of the bearing housing with optional bearing isolators
- Grease lubrication standard

### 5. Casing Wear Rings

- Standard case wear ring is supplied in bronze or other specified alloy
- Easily removed and replaced without additional machining
- API stepped design breaks down pressure more efficiently
- Locked in place with anti-rotation pins



### 6. Stuffing Boxes/Seal Chambers

- Heavy-duty class 30 cast iron or other specified alloy
- Internal Plan 1 flush standard; external flush optional
- Thru-Bore allows for removal with rotor assembly
- Integral seal failure port standard
- Integral vortex suppressor that can be replaced if worn or damaged

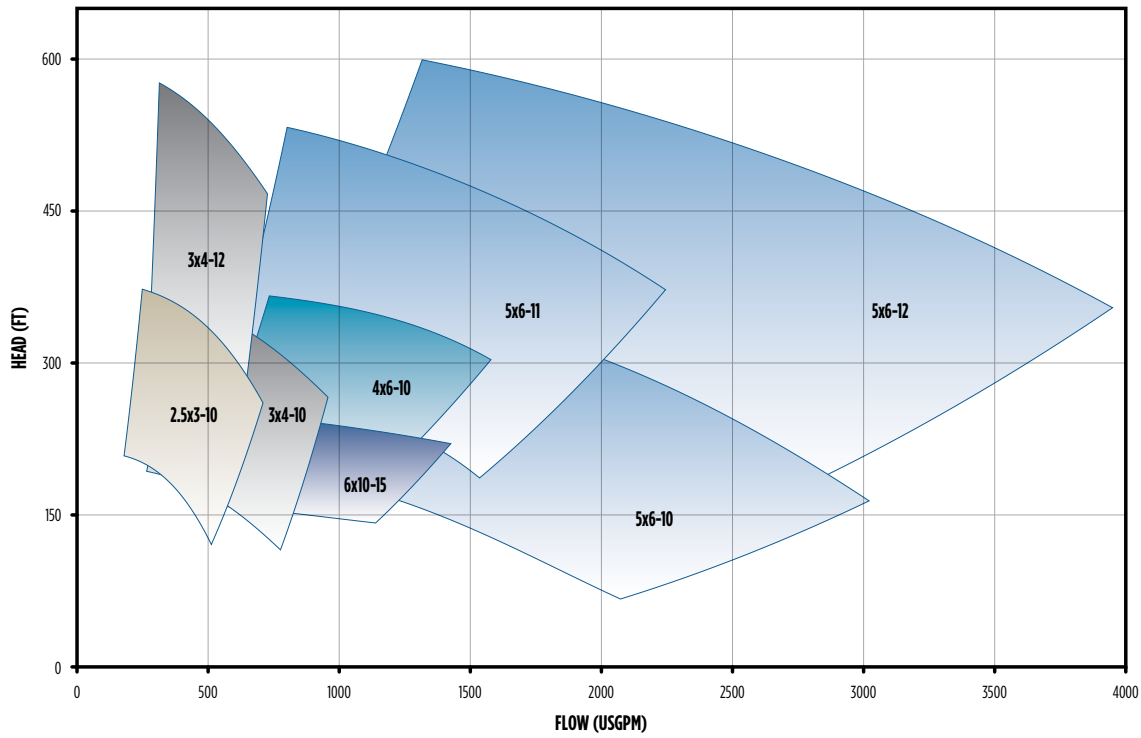
### 7. Shaft

- Corrosion-resistant 420 stainless steel
- Oversized for unplanned loads and to minimize deflection

# SP & V-SP SERIES SPLIT CASE PUMPS

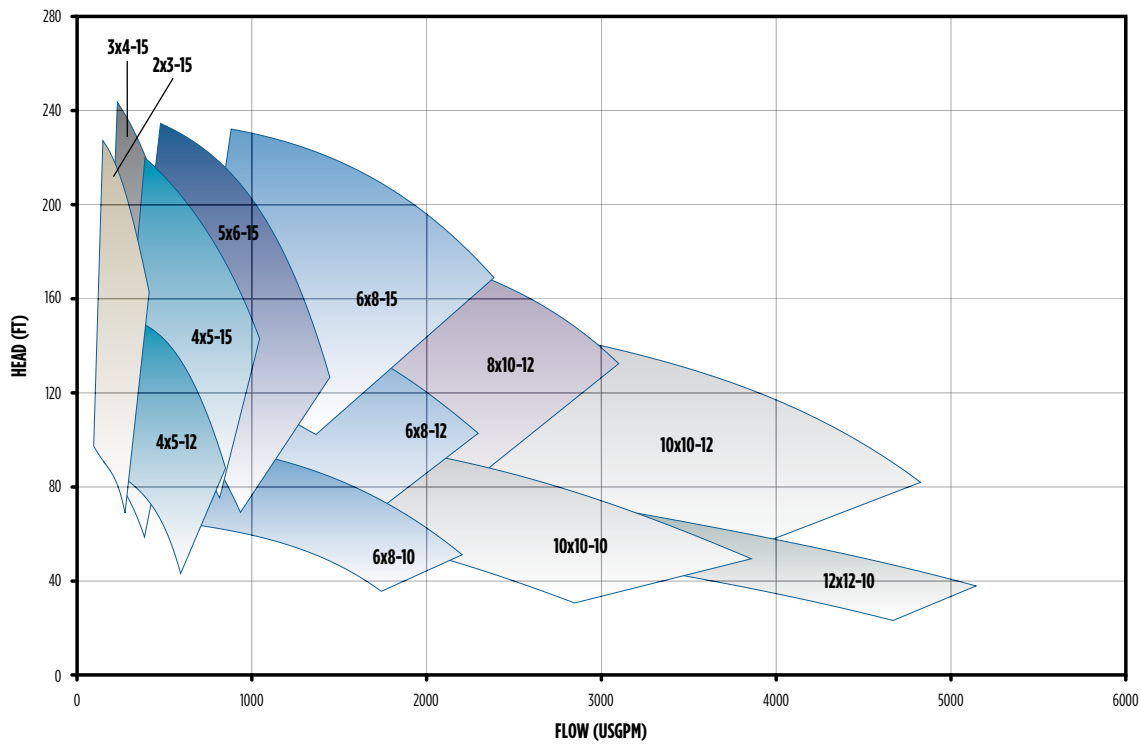
PERFORMANCE

2-POLE, 3500 RPM



PERFORMANCE

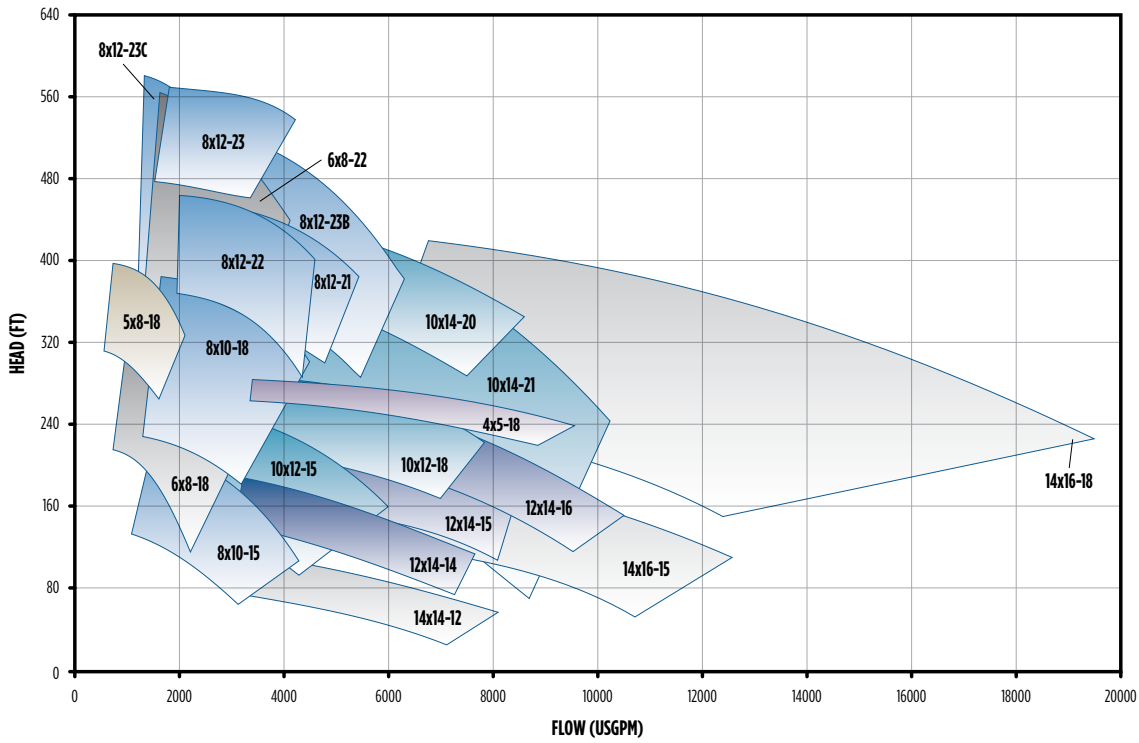
4-POLE, 1760 RPM



# SP & V-SP SERIES SPLIT CASE PUMPS

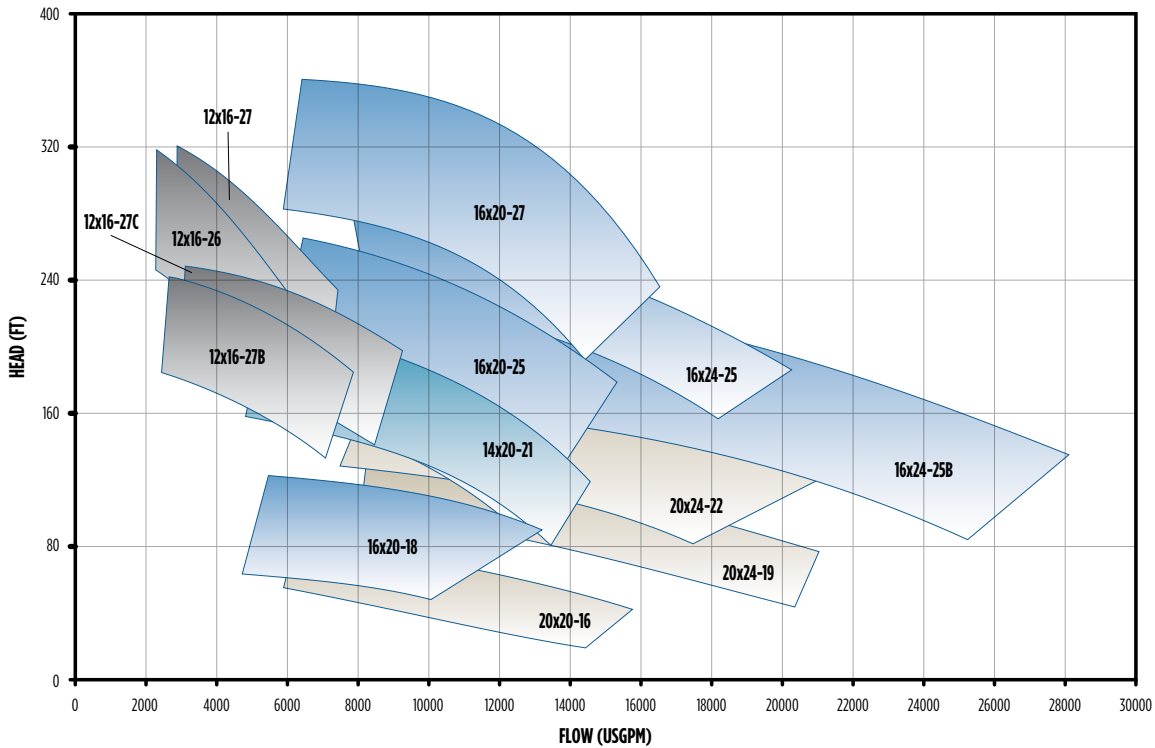
PERFORMANCE

4-POLE, 1760 RPM



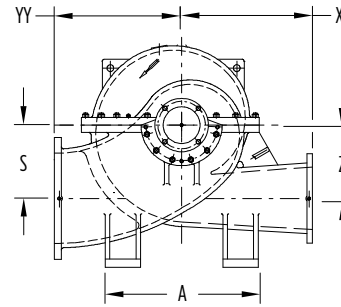
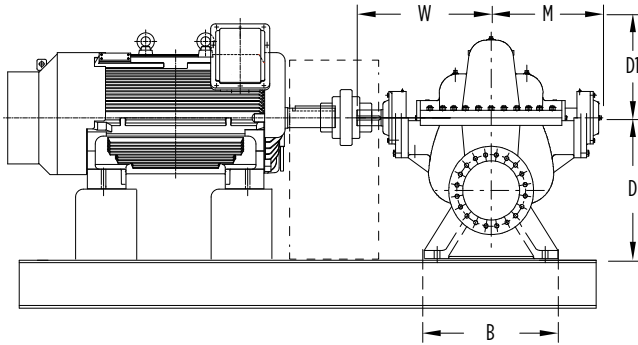
PERFORMANCE

6-POLE, 1160 RPM



# SP & V-SP SERIES SPLIT CASE PUMPS

## DIMENSIONS



Module	Pump Size	Dimensions (in)										Pump Wt. (lbs)		
		A	B	D	D1	M	W	X	YY	S	Z			
1	2.5x3-10 SP	13.813	11.813	9.875	7.75	12.938	16.313	8.875	11.063	5.125		265		
	3x4-10 SP			11	7.625			9.063	10.625			287		
	5x6-11 SP			13.375	10.063			11.438	12.188			6.313	408	
	3x4-12 SP			11	7.625			10.813	11.438			5.938	330	
	4x5-12 SP	15.75	13	12.625	9.625	15.688	20.25	13.813	12.625	6.688		385		
	2x3-15 SP			11.813	10.313				11.063			14	396	
	3x4-15 SP			12.625	10.938				13.813			13.375	6.875	433
2	5x6-10 SP	15.75	13	13.375	8.875	14.188	17.5	9.875	12.813	7.125		518		
	6x8-10 SP			15.375	9.688			12.188	14.375			7.875	584	
	5x6-12 SP			13.375	10			11.438	13.188			6.875	507	
3	4x6-10 SP	13.813	11.813	13.375	8.563	15.688	20.25	9.875	12.188	6.688		430		
	4x5-15 SP				11.188							13.375	7.5	573
	5x6-15 SP	17.75	13	15.375	11.688			13.813	15.75	16.125	8.25			694
	4x5-18 SP				11.813									11.17
	6x8-12 SP				10.813									661
6x8-15 SP	15.75	16.563	17.313	11.313	16.125	750								
4	10x10-10 SP	15.75	16.563	17.313	12	17.5	22.063	13.375	19.313	8.25		915		
	12x12-10 SP	24.438	20.063	20.063	12.625	18.313	25.25	18.125	22.818	11.438		1177		
	8x10-12 SP	20.063	19.688	21.25	12.563	17.5	22.063	15.188	17.75	11.25		1014		
	10x10-12 SP							15.75	16.938	9.875	1036			
14x14-12 SP	26.75	22.813	24.438	14.188	20.063	24.5	23	23	12.188		1477			
5	8x10-15 SP	20.063	16.563	18.125	13.375	18.125	24.313	16.563	18.875	8.875		1168		
	10x12-15 SP	19.688	17.75	21.25	15.5			16.375	21.563	10.438		1510		
	5x8-18 SP			19.688	13.875			17.75	18.875	10.25	1223			
	6x8-18 SP	22.063	21.25	14.75	14.688			26	20.063	10.625		1311		
	8x10-18 SP			18.25	18.625			23.063	19.688	23.625	11.813	1426		
	6x8-22 SP			18.25	18.625			23.063	19.688	23.625	11.813	1600		
6	8x12-21 SP	28.375	19.688	21.688	19.25	19.313	24.313	20.688	22.25	11.438		2000		
	8x12-22 SP													
	8x12-23/B/C SP													
	10x12-18 SP	24.438	20.063	20.063	13.75	20.313	24.813	20.875	21.25	9.438	12.188	1820		
	10x14-20 SP				20.063	22.188	17.688	21.188	10.25	14.188	3000			
	10x14-21 SP	25.438	22.813	22.813	23.25	29.625	29.625	25.625	25.625			2081		
	12x14-14B SP				26.75							22.813	24.438	13.813
	12x14-15 SP	27.188	23.625	24.375	15.75	20.875	26.563	20.063	22.438	11.813		1642		
12x14-16 SP	1710													
20x20-16B SP	40.156	29.938	31.5	22.063	23.313	28.25	30.5	30.5	16.125		4350			
7	14x16-15 SP	31.5	23.625	26.375	20.25	23.313	28.563	21.625	25.625	13.75		1710		
	14x16-18 SP	41.313		29.5	16.5	23.063	31.875	29.5	25.563	15.75		2450		
	14x20-21 SP	40.156	29.938	31.5	18.5	24.125	30.188	24.813	28.375	16.313		3700		
	16x20-18 SP				18.25	24.875	29.5	29.188	32.25	16.125	3250			
	16x20-27 SP				19.688	28.813	35.625	31.875	32.688	14.563	6550			
	20x24-19 SP	37	37.375	23.625	26.375	31.875	31.875	33.063	37.375	18.125		4250		
	20x24-22 SP											28.375	30.375	35.188
8	12x16-26 SP	41.313	23.625	29.5	18.75	24.563	31.875	29.5	25.563	15.75		4250		
	12x16-27/B/C SP											4250		
	16x20-25 SP	40.156	32.688	33.438	21.625	37.625	30.688	31.875	32.688	14.563		4865		
	16x24-25/B SP											37	37.438	21.063





*Franklin Electric's dedicated support teams have your back every step of the way.  
Our products and services are backed by features unique to the Franklin Experience:*



Access to the industry's leading Technical Support professionals and Field Service Engineers.



**FE SELECT**

Ability to size, configure, price, & quote with FE SELECT™.



**Franklin Electric**