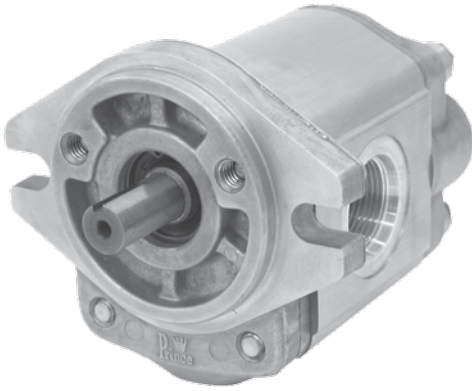


# SP20 SERIES SAE "A" FLANGE PUMP



## New Updated Design

- More Port Options
- More Shaft Options
- Lower Price
- Contact your sales representative for more information

The SP20B pump now utilizes self-lubricating thrust blocks that eliminate the need for separate wear plates. They are made from a high strength aluminum alloy with exceptional anti-galling properties. This new thrust block design also incorporates advanced bearings designed specifically for high pressure hydraulic pumps. This new bearing features a robust fluoropolymer PTFE wear surface that yields unsurpassed load carrying capabilities and cavitation resistance even at low speeds and moderate levels of contamination. Also, since the PTFE resin layer is self-lubricating, contamination from bearing wear in high load situations (when no oil film is present) is reduced. This new thrust block design combined with these advanced bearing results in lower friction and less internal oil loss resulting in higher pump efficiencies.

## MODEL CODE

**SP20B 14 A 9 H 2-R**

**SERIES NO** \_\_\_\_\_

**DISPLACEMENT CODE (CC/REV)** \_\_\_\_\_

**PORT LOCATION** \_\_\_\_\_

- A-SIDE INLET AND OUTLET
- C-BOTH SIDE AND REAR W/STEEL PLUGS
- D-REAR INLET AND OUTLET
- E-BOTH SIDE AND REAR W/PLASTIC PLUGS

**PORT TYPE** \_\_\_\_\_

- 9-STANDARD PORTS SAE PER CHART BELOW
- OPTIONAL PORTS CONSULT FACTORY SIDE PORT ONLY
- 8-METRIC O-RING
- 7-BSPP
- 6-SAE SPLIT FLANGE 16-33 CC ONLY
- 5-METRIC SPLIT FLANGE 16-33 CC ONLY

**ROTATION (FACING END OF SHAFT)**

- L-COUNTER CLOCKWISE
- R-CLOCKWISE DRIVE SHAFT

**DRIVE SHAFT**

- 9-SAE 9 TOOTH 16/32 SPLINE
- 2-SAE 5/8" STRAIGHT KEYED
- 3-11 TOOTH 16/32 SPLINE\*
- 4-3/4" STRAIGHT KEYED\*
- 5-SAE 10 TOOTH 16/32 SPLINE

**MOUNTING**

- H-SAE "A" 2 BOLT

\*REQUIRED FOR DISPLACEMENT CODES 30 AND 33

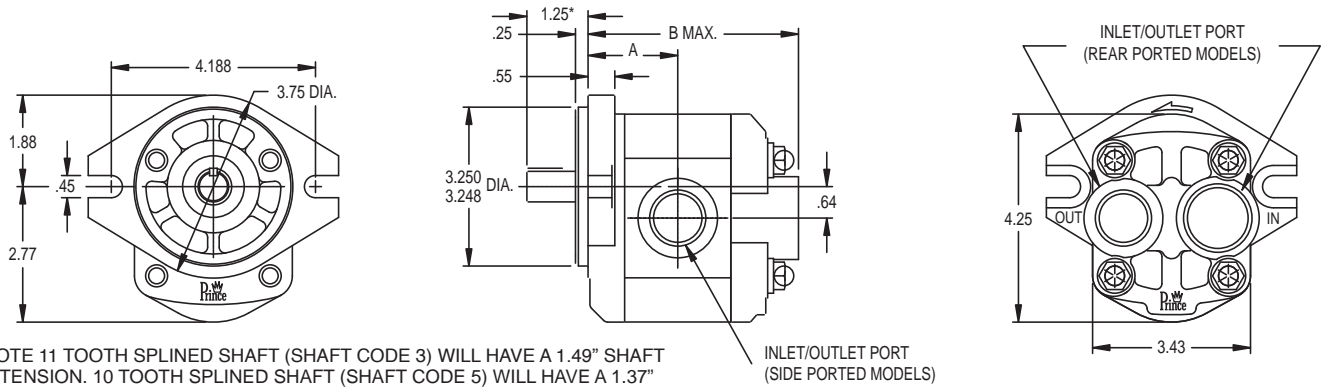
## SPECIFICATIONS

MODEL NUMBER	DISP. IN <sup>3</sup> /REV	RATED PRESSURE (PSI)	MAX <sup>o</sup> RPM	A	B	INLET PORT			OUTLET PORT		FULL THREAD DEPTH	WT. (LB.)
						SAE SIZE		FULL THREAD DEPTH	SAE SIZE			
						SIDE	REAR		SIDE	REAR		
SP20B06	.400	3000	4000	1.79	4.22	7/8-14 UN-2B	1 5/16-12 UN-2B	5/8"	3/4-16 UN-2B	1/16-12 UN-2B	9/16"	5.0
SP20B08	.499	3000	4000	1.83	4.30	1 1/16-12 UN-2B	1 5/16-12	3/4"	7/8-14 UNF-2B	1 1/16-12	5/8"	5.1
SP20B09	.589	3000	4000	1.87	4.38							5.3
SP20B11	.677	3000	4000	1.91	4.46							5.5
SP20B14	.860	3000	4000	1.99	4.62							5.7
SP20B16	.976	3000	4000	2.04	4.71							6.0
SP20B20	1.220	3000	3500	2.15	4.93	1 5/16-12 UN-2B	UN-2B	3/4"	1 1/16-12 UN-2B	3/4"	6.2	
SP20B23	1.403	2500	3500	2.23	5.09						6.4	
SP20B27	1.654	2500	3500	2.34	5.31	UN-2B	UN-2B	UN-2B	UN-2B	UN-2B	UN-2B	6.6
SP20B30	1.881	2500	3500	2.41	5.46							7.1
SP20B33	2.014	2500	3500	2.49	5.62							7.6

<sup>o</sup>Max. RPM for side ported models. Rear ported models should be restricted to 21 gpm. Standard Seal Kit for all SP20 Models is Prince Part No. PMCK-SP20.

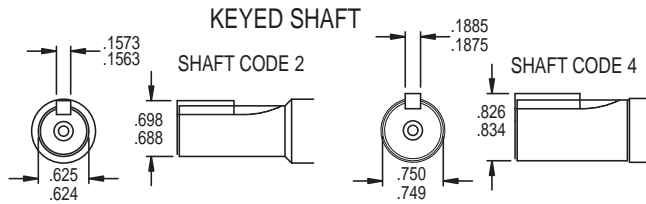
PUMPS AND MOTORS

## SP20 SERIES DIMENSIONAL DATA



\*NOTE 11 TOOTH SPLINED SHAFT (SHAFT CODE 3) WILL HAVE A 1.49" SHAFT EXTENSION. 10 TOOTH SPLINED SHAFT (SHAFT CODE 5) WILL HAVE A 1.37" SHAFT EXTENSION.

INLET/OUTLET PORT (SIDE PORTED MODELS)



### SPLINED SHAFT

SHAFT CODE 9	SHAFT CODE 5	SHAFT CODE 3
9 TOOTH	10 TOOTH	11 TOOTH
16/32 DP	16/32 DP	16/32 DP
30° PA	30° PA	30° PA
FLAT ROOT SIDE FIT	FLAT ROOT SIDE FIT	FLAT ROOT SIDE FIT

## TYPICAL PERFORMANCE DATA

MODEL		RPM								PRESSURE
		500	1000	1500	2000	2500	3000	3500	4000	(PSI)
SP20B06	FLOW (GPM)	.78	1.62	2.48	3.35	4.24	5.10	5.98	6.92	3000
	INPUT HORSE POWER	1.85	3.77	5.66	7.57	9.45	11.13	13.06	14.80	
SP20B08	FLOW (GPM)	.88	1.91	2.97	4.04	5.10	6.16	7.27	8.33	
	INPUT HORSE POWER	2.23	4.38	6.53	8.83	11.13	13.57	16.17	18.69	
SP20B09	FLOW (GPM)	1.03	2.30	3.52	4.75	5.97	7.19	8.46	9.74	
	INPUT HORSE POWER	2.61	5.03	7.54	10.14	12.84	15.54	18.43	21.31	
SP20B11	FLOW (GPM)	1.27	2.74	4.16	5.63	7.05	8.51	9.98	11.40	
	INPUT HORSE POWER	2.98	5.77	8.75	11.63	14.80	17.87	21.12	24.38	
SP20B14	FLOW (GPM)	1.61	3.36	5.19	7.01	8.91	10.74	12.56	14.39	
	INPUT HORSE POWER	3.68	7.09	10.51	14.19	18.00	21.68	25.49	29.43	
SP20B16	FLOW (GPM)	1.80	3.82	5.87	7.93	9.98	12.11	14.24	16.22	
	INPUT HORSE POWER	4.01	7.86	11.87	15.87	20.17	24.33	28.78	34.12	
SP20B20	FLOW (GPM)	2.35	4.92	7.49	10.05	12.70	15.26	17.76		
	INPUT HORSE POWER	5.21	9.98	14.89	20.10	25.16	30.52	35.73		
SP20B23	FLOW (GPM)	2.80	5.72	8.73	11.60	14.68	17.61	20.55		
	INPUT HORSE POWER	5.06	9.68	14.44	19.21	24.27	29.48	34.54		
SP20B27	FLOW (GPM)	3.30	6.90	10.47	13.90	17.52	20.94	24.46		
	INPUT HORSE POWER	5.98	11.59	17.20	23.00	28.98	34.78	41.13		
SP20B30	FLOW (GPM)	3.85	7.78	11.47	15.36	19.22	23.03	26.86		
	INPUT HORSE POWER	6.40	12.56	18.38	24.64	30.93	37.59	43.80		
SP20B33	FLOW (GPM)	4.13	8.47	12.60	16.86	21.11	25.26	29.52		
	INPUT HORSE POWER	7.14	13.40	19.98	27.04	33.90	41.05	47.89		

Typical Performance Data Based on 140 SUS Oil at 120° F