

# **RUSSELL PUMP**

## **Model PA515**

**Self Priming, Close Coupled, Bronze Fitted,  
Centrifugal Pump**



**Typical Applications**  
**Water Transfer, Light Irrigation,**  
**Dewatering, Lawn Sprinkling,**  
**Pressure Boosting, Heat Pumps.**  
**Air Conditioning Systems**

Russell Pump and Engineering Inc.  
102 W. Chicago Street  
Albion, IA 50005  
641-488-2319

# Design Features

## CASING

Constructed as ASTM A48 class 30 cast iron. Back pull-out design allows the pump to be serviced without disturbing the piping. 1/4 npt suction gauge and 1/8 npt drain tappings are standard. Self-venting design prevents air binding within the pump. After initial priming the pump never needs to be primed again.

## MECHANICAL SEAL

Type 21 buna-n seal is rated to 225°F and pressures to 175PSI. Carbon seal face mates with the ceramic seat providing years of trouble free service. Alternate seals available upon request.

## IMPELLER

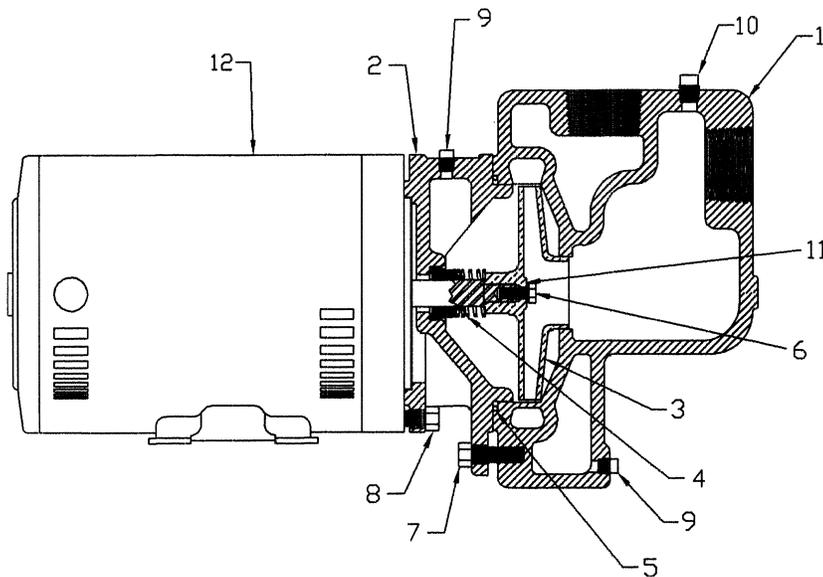
The hydraulic design of the impeller maximizes pressure and gpm while minimizing horsepower. The enclosed vacuum cast impeller is made of cast bronze.

## ADAPTER

The precision machining of the adapter allows for easy assembly of the pump. Construction consists of ASTM A48 class 30 cast iron.

## MOTOR

The NEMA 56J motor utilizes a 416 stainless steel shaft. The motor's heavy duty ball bearings withstand axial and radial thrust loads with no problem. Standard enclosure type is drip-proof but alternates are available.

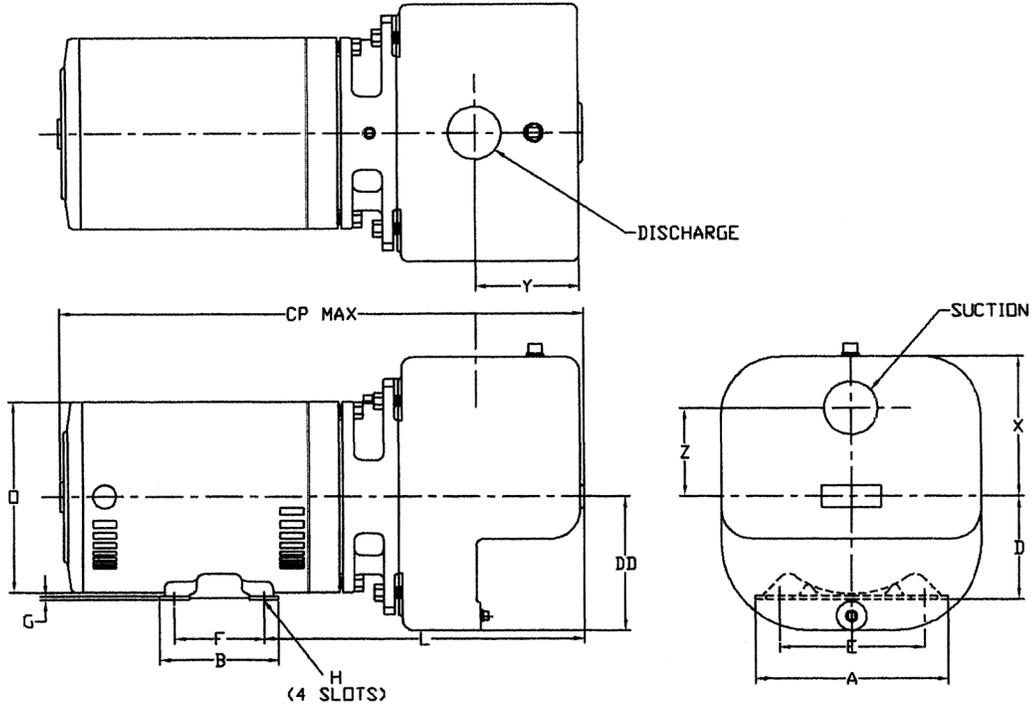


1	CASING PA515	CLASS 30 CAST IRON	40025	1
2	ADAPTER A510	CLASS 30 CAST IRON	30000	1
3	IMPELLER A510	BRONZE	20000	1
4	MECHANICAL SEAL	BUNA-N	S-100	1
		EPT	S-101	
		VITON	S-102	
5	D-RING CASING	BUNA-N	S-109	1
		EPT	S-110	
		VITON	S-111	
6	CAP SCREW	1/4-28UNC X 5/8 SS	70040	1
7	CAP SCREW	3/8-16 X 1 1/4 STEEL	19932	4
8	CAP SCREW	3/8-16 X 1 STEEL	19931	4
9	PIPE PLUG	1/8 NPT BRONZE	69845	2
10	PIPE PLUG	1/4 NPT BRONZE	60505	1
11	LOCKWASHER	1/4 303 SS	0130197	1
12	MOTOR	NEMA 56J	-	1

NOTE: Single phase models do NOT require part numbers 70040 or 0130197

# LIMITATIONS

MAXIMUM WORKING PRESSURE	-	175PSI
MAXIMUM GALLONS PER MINUTE	-	90
MAXIMUM HEAD PRODUCED	-	103 FT.
RPM	-	3450
MAXIMUM SEAL TEMP BUNA-N	-	225°F
EPT	-	300°F
VITON	-	400°F
MAXIMUM HORSEPOWER	-	2



THE CHART BELOW IS BASED ON MOTORS UTILIZING THE FOLLOWING CHARACTERISTICS:  
3Ø DDP 3450RPM 208-230/460V DLT 60 HERTZ

HP	SUCTION	DISCHARGE	A	B	CP MAX	D	DD	E	F	G	H	L	D	X	Y	Z
1/3	1 1/2" NPT	1 1/2" NPT	6 1/2	3 3/4	16 1/4	3 1/2	4 9/16	4 7/8	3	1/8	Ø7/16	11 1/8	6 1/2	4 3/4	3 1/2	3
1/2				3 3/4	16 3/4											
3/4				4	16 3/4											
1				4	16 3/4											
1 1/2				4	16 3/4											
2				6 1/2	16 3/4											
3	6 1/2	17 3/4														

THE CHART BELOW IS BASED ON MOTORS UTILIZING THE FOLLOWING CHARACTERISTICS:  
1Ø DDP 3450RPM 115/230V DLT 60 HERTZ

HP	SUCTION	DISCHARGE	A	B	CP MAX	D	DD	E	F	G	H	L	D	X	Y	Z
1/3	1 1/2" NPT	1 1/2" NPT	6 1/2	3 3/4	16 3/4	3 1/2	4 9/16	4 7/8	3	1/8	Ø7/16	11 1/8	6 1/2	4 3/4	3 1/2	3
1/2				3 3/4	17											
3/4				4	17 1/4											
1				4	18 1/4											
1 1/2				4	18 1/4											
2				6 1/2	17 3/4											
3	6 1/2	18 1/4														

# SPECIFICATIONS

The contractor shall furnish (and install as shown on the plans) a Russell Series PA515 self-priming, close coupled, centrifugal, bronze fitted pump. Each 1 1/2" x 1 1/2" pump shall have the capacity of \_\_\_\_ GPM when operated at a total head of \_\_\_\_ feet.

The pump casing shall be radially split, self priming with 1/4 npt suction gauge tappings included. There shall be a 1/8 npt drain hole in the casing. The casing shall have a self venting design to prevent air or gas binding. The casing design should be of a back pull-out type.

The pump is to be furnished with a mechanical seal which incorporates stainless steel parts. Buna-N elastomers, ceramic seat, and carbon seal face shall be standard.

The pump shall be close coupled to a NEMA C face \_\_\_\_HP \_\_\_\_PHASE \_\_\_\_HERTZ \_\_\_\_VOLTAGE \_\_\_\_RPM drip-proof motor. The motor shall be sized to prevent overloading at the duty point. The motor shall have a stainless steel shaft and sealed bearings.

All external cast parts shall have at least one coat of a high grade baked on powder coat paint. Each unit shall be checked by the contractor to regulate the correct pressure, voltage, and amp draw.

