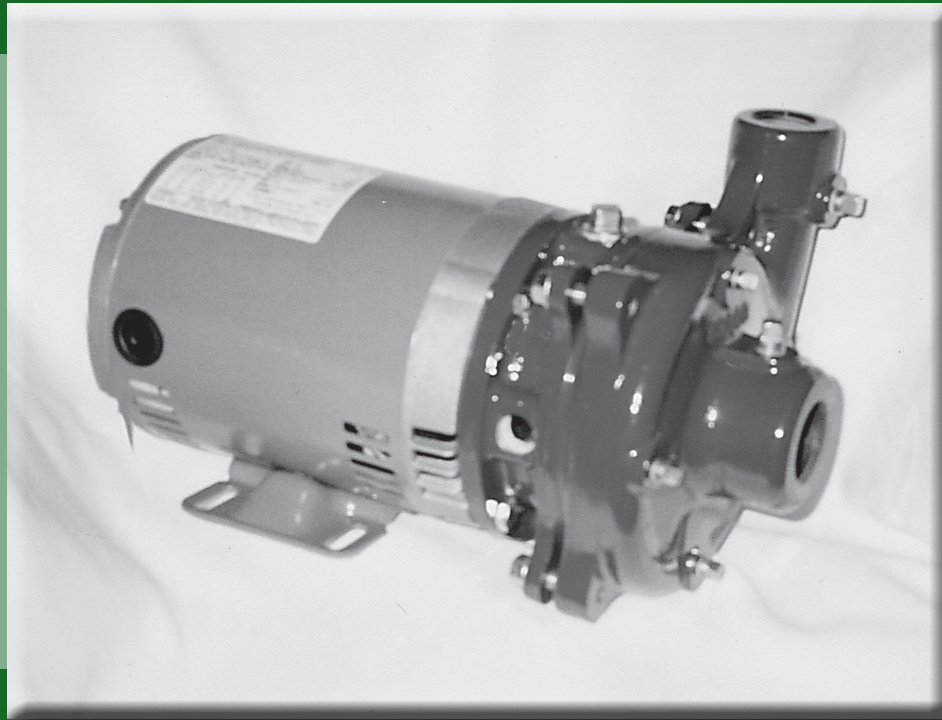


RUSSELL PUMP

Model JA510

**End Suction, Close Coupled, Bronze Fitted,
Water Jacketed, Centrifugal Pump**



Typical Applications
OEM, General Purpose, HVAC,
Boiler Feed, Hot Water
Circulation

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. The discharge can be mounted in any 90° position. Drain and air ports are also positioned every 90°, 1/4 npt suction and discharge tappings are standard. Back pull out design allows the pump to be serviced without disturbing the piping. The volute was designed to maximize hydraulic efficiency.

MECHANICAL SEAL

Type 21 viton seal is rated to 400°F and pressures to 175PSI. Carbon seal face mates with the ceramic seat providing years of trouble free service.

IMPELLER

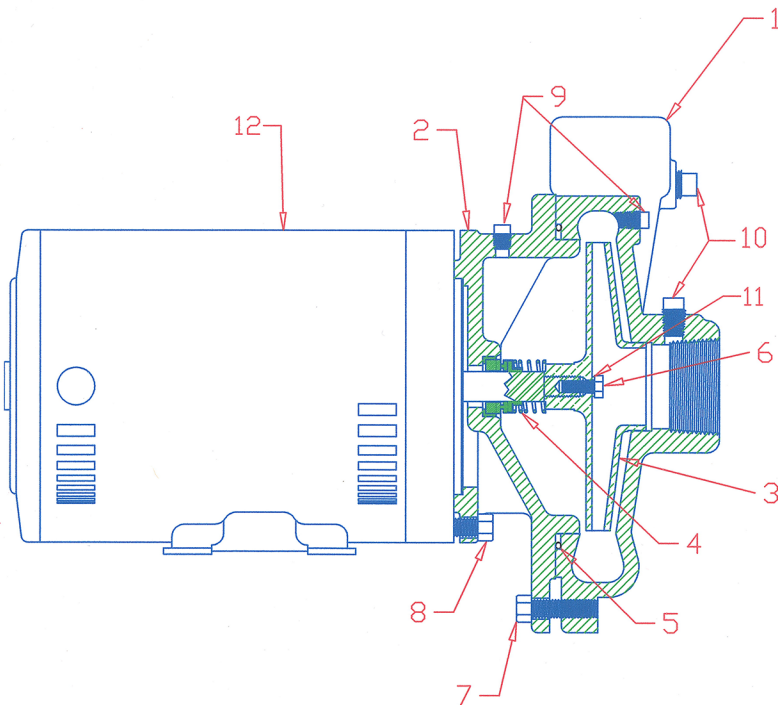
The hydraulic design of the impeller maximizes pressure and gpm while minimizing horsepower. The enclosed vacuum cast impeller is made of CDA87500 silicon bronze. The impeller has a pressed-on throttle bushing which fits snugly into the adapter to restrict fluid circulation.

ADAPTER

The cast in water jacket allows fluids up to 500°F to be pumped without damage to the mechanical seal or the motor. The seal “pocket” is specially machined to allow minimal liquid circulation which keeps the area cool. The adapter has 1/2” npt ports every 90° for easy water line connections. Construction consists of ASTM A48 class 30 cast iron.

MOTOR

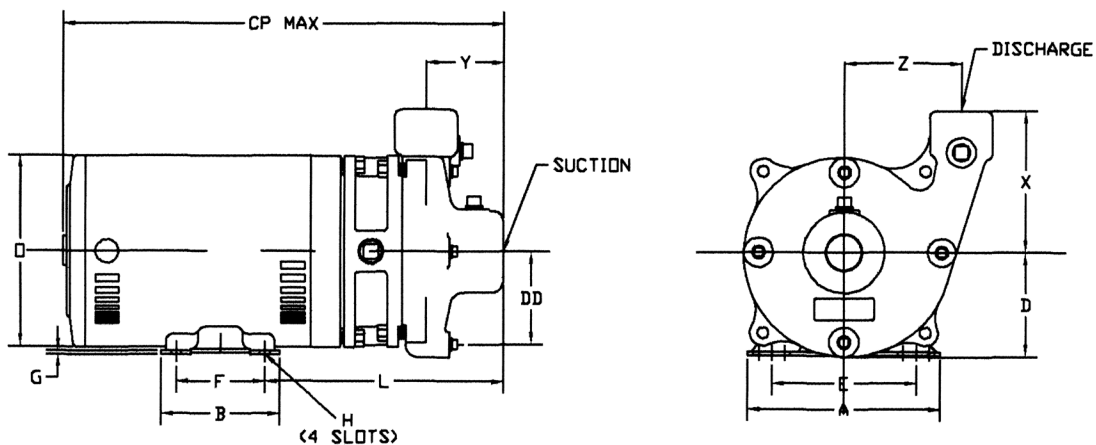
The NEMA 56J motor utilizes a 416 stainless steel shaft. The motor’s heavy duty ball bearings withstand axial and radial thrust loads with no problem. Standard enclosure type is drip-proof but alternates are available.



1	CASING A612	304 STAINLESS STEEL	40070	1
2	ADAPTER A612	304 STAINLESS STEEL	40064	1
3	IMPELLER A612	304 STAINLESS STEEL	20006	1
4	MECHANICAL SEAL	BUNA-N	S-100	1
		EPT	S-101	
		VITON	S-102	
5	O-RING CASING	BUNA-N	S-132	1
		EPT	S-133	
		VITON	S-134	
6	CAP SCREW	1/4-28UNC X 5/8 SS	70040	1
7	CAP SCREW	3/8-16 X 1 1/4 SS	S-281	4
8	CAP SCREW	3/8-16 X 7/8 SS	S-280	4
9	PIPE PLUG	1/8NPT 18-8SS	S-273	5
10	PIPE PLUG	1/4NPT 18-8SS	S-274	2
11	LOCKWASHER	1/4 303 SS	0130197	1
12	MOTOR	NEMA 56J	-	1

Limitations

MAXIMUM WORKING PRESSURE	- 175PSI
MAXIMUM GALLONS PER MINUTE	- 82
MAXIMUM HEAD PRODUCED	- 105 FT.
RPM	- 3450
MAXIMUM SEAL CAVITY TEMP	- 500°F
MAXIMUM HORSEPOWER	- 3



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

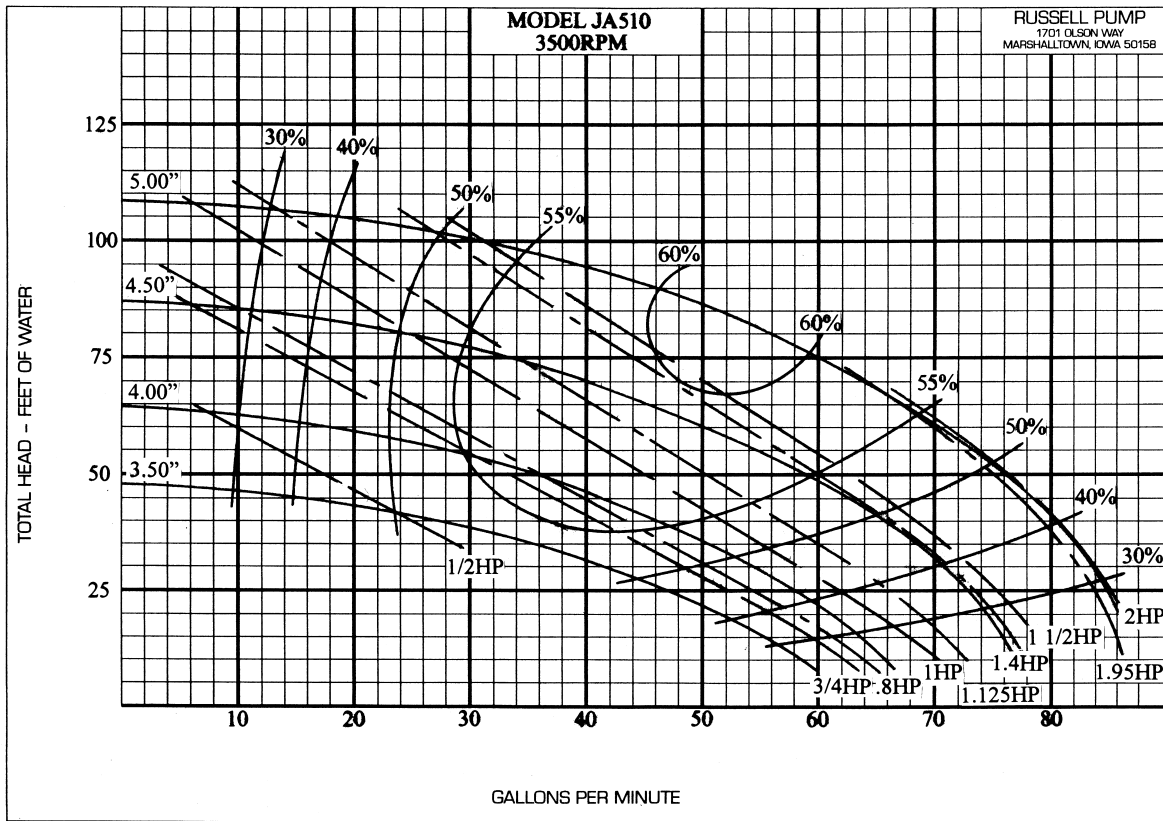
HP	SUCTION	DISCHARGE	A	B	CP MAX	D	DD	E	F	G	H	L	Ø	X	Y	Z
1/3	1 1/4" NPT	1" NPT	6 1/2	3 3/4	14	3 9/16	3 1/16	4 7/8	3	1/8	Ø11/32	8 1/16	6 1/2	4 13/16	2 5/8	3 15/16
1/2				3 3/4	14 1/8											
3/4				4	14 3/4											
1				4	15 3/16											
1 1/2				4	16 3/4											
2				6 1/2	16 3/4											
3				6 1/2	16 3/4											

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

HP	SUCTION	DISCHARGE	A	B	CP MAX	D	DD	E	F	G	H	L	Ø	X	Y	Z
1/3	1 1/4" NPT	1" NPT	6 1/2	3 3/4	13 7/8	3 9/16	3 1/16	4 7/8	3	1/8	Ø11/32	8 1/16	6 1/2	4 13/16	2 5/8	3 15/16
1/2				3 3/4	14 3/8											
3/4				4	15											
1				4	15 1/2											
1 1/2				4	16 3/4											
2				6 1/2	17 1/2											
3				6 1/2	18 1/4											

MODEL JA510

3500 RPM Curve



Oil/Seal Temperature Curve

