



INNOVATION & QUALITY

J - 0706 Rev. 07 - US

**Self-priming
centrifugal pumps**



 APPLICATIONS


INDUSTRIES

- ▼ **Process:** clean or dirty neutral, acid or alkali liquids; liquids containing sand, mud or solids in suspension; clean or dirty low viscosity petroleum products or solvents; milk of lime, caustic soda; washing, cooling, circulation; smoke scrubbing
- ▼ **Treatment:** pumping polluted, hot or corrosive waste water containing sand, mud or solids in suspension; dosing neutralising liquids; pumping out settled sludge
- ▼ **Marine:** loading and unloading; bilge pumping; washing, fire fighting, stripping, sanitary duty and circulation
- ▼ **Agriculture:** surface irrigation; liquid manure oxygenation; transfer and spraying liquid manure or fertilisers; distribution of liquid animal feed; transfer of must; washing



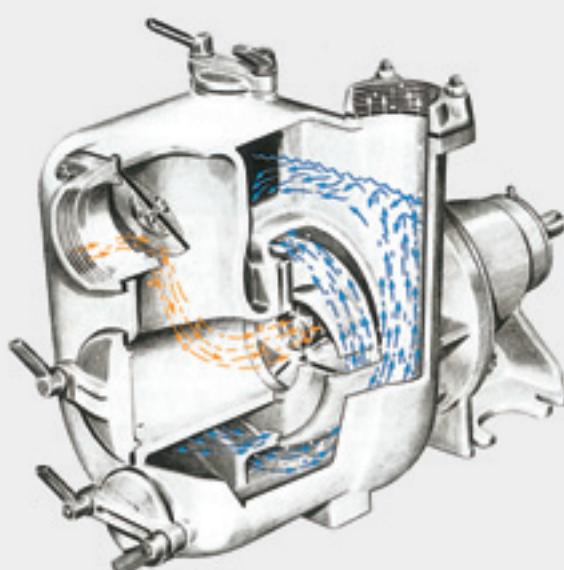
Self-priming principle

The air (yellow arrows) is drawn into the pump due to the negative pressure created by the moving impeller and is emulsified with the liquid (blue arrows) contained in the pump body.

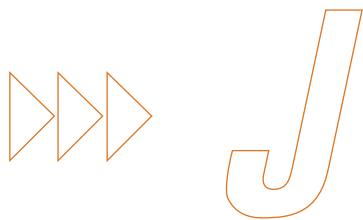
The air-liquid emulsion is forced into the priming chamber where the lighter air is separated and leaves through the discharge pipe; the heavier liquid drops back down into circulation. Once all of the air has been expelled from the suction pipe, the pump is primed and works like a normal centrifugal pump. The pump can also work with an air-liquid **mixture**.

The non-return valve has a dual function: it prevents the suction pipe from emptying when the pump is off; in the event of accidental emptying of the suction pipe, this holds a sufficient amount of liquid in the pump body to prime the pump.

The discharge pipe must be free to expel the air coming from the suction pipe.



FEATURES



Industrial waste water treatment



Cooling water supply for a distillery

► **Rapid self-priming**

without foot valve. Once filled with water, the pump is automatically primed to a height of 25 ft.

► **Simple construction:**

only one moving part: the impeller.

► Open-blade **impeller** allowing the passage of wide solid bodies and easy inspection

► **High resistance to abrasive liquids:**
the wear plate is easily replaceable.

► **Axial mechanical seal lubricated from the outside:**

no leaks or infiltration of air along the shaft.

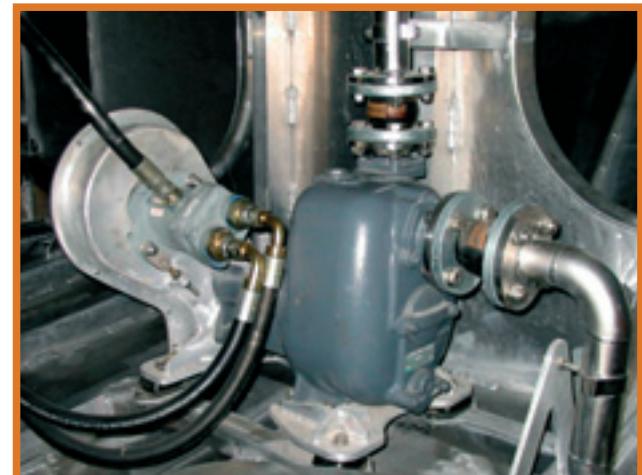
► **Easy to install:**

only the suction pipe needs to be immersed in the liquid.

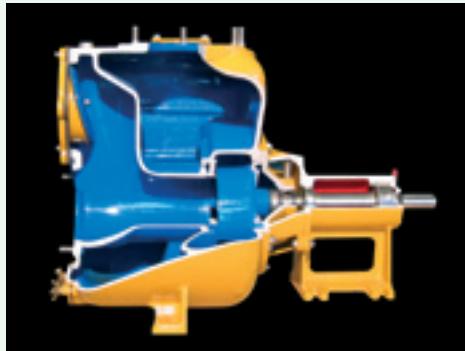
The pump can be located above and in a dry place, in the most suitable location for service and control.

► **Long life:**

parts subject to wear can be easily replaced to restore original performance.



J 2-180 with hydraulic motor on a fishing boat



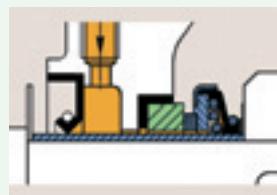
- ▶ Heavy duty casing in cast iron, bronze or stainless steel.
- ▶ Easily opened priming, drain and impeller inspection covers.



- ▶ Ductile iron, aluminium bronze or stainless steel open impeller handling large diameter spherical solids.



- ▶ Easily replaceable wear plates available in cast iron, vulcanized abrasion resistant rubber, bronze or stainless steel.



- ▶ Externally lubricated mechanical seal. Can run dry on high vacuum even when pumping highly abrasive liquids.

- ▶ Silicon or tungsten carbide seats (graphite rotating seat for versions for petroleum products).

- ▶ Heavy duty bearing selections are standard to accommodate V Belt Drive Loads, providing sustained superior performance.
- ▶ Shafts diameters and keyways are designed to easily adapt to industry common coupling and pulley sizes.



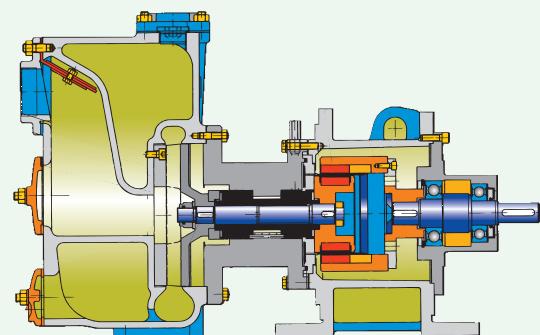
SPECIAL VERSIONS

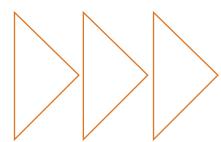
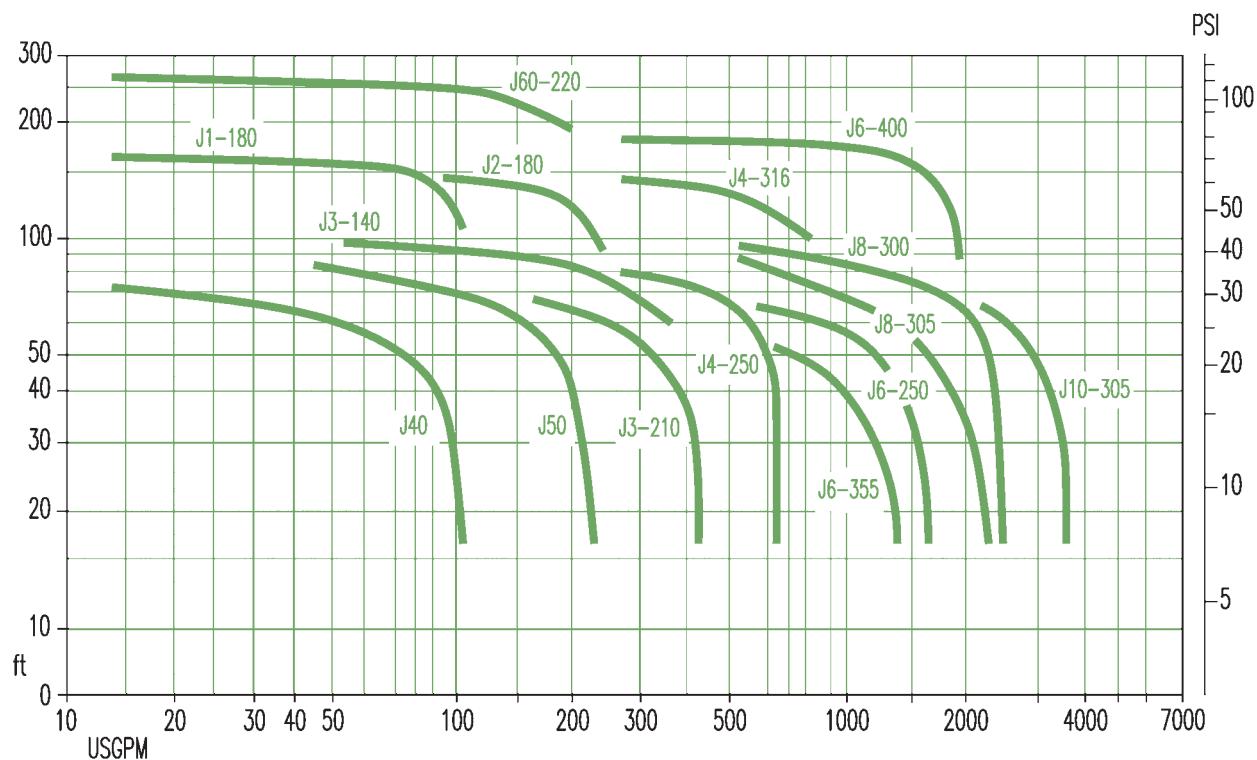
- ▶ For the availability of materials, treatments and accessories for specific applications, please contact our Sales Office.
- ▶ The pumps can be certified in accordance with the ATEX standards.



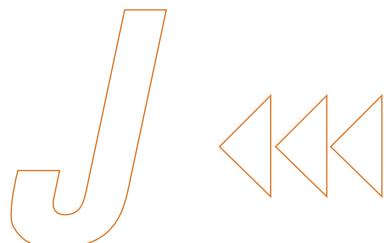
MAGNETIC DRIVE (TRM)

- ▶ Magnetic drive pump. The liquid is completely contained in the pump to avoid leaks and consequent pollution of the environment.
- ▶ For details on models available, contact our Sales Department.





60Hz



Electrically-driven pumps

Model	Size in	Solids	Impeller vanes	60 Hz							
				Capacity USGPM			Head ft			RPM	Motor HP
J40	1½"	3/4"	3	100	60	20	16	59	71	3450	3
J1-180	1½"	7/16"	4	100	60	24	112	157	157	3450	7.5
J50	2"	1"	3	200	120	40	31	66	82	3450	5.5
J2-180	2"	5/8"	4	200	120	40	112	144	157	3450	15
J60-220	2"	1/2"	5	170	110	40	200	240	260	3450	18.5
J3-140	3"	1 1/8"	3	280	160	80	69	85	94	3450	10
J3-210	3"	1 1/2"	3	360	180	80	39	64	72	1750	10
J4-250	4"	2"	2	600	320	160	46	79	87	1750	20
J4-316	4"	1 1/2"	4	720	450	240	98	131	141	1750	40
J6-250	6"	3"	2	1400	800	320	26	59	72	1750	30
J6-355	6"	1 7/8"	3	1130	800	360	23	49	66	1150	20
J6-400	6"	2"	4	1550	800	400	138	177	180	1750	100
J8-300	8"	2 9/16"	4	1950	1300	485	49	82	94	1750	60
J8-305	8"	3"	2	1950	800	400	33	66	89	1750	40
J10-305	10"	3"	2	2450	1600	800	56	77	92	1750	60

DIMENSIONS AND WEIGHTS ◀

Pedestal version

Model	Size in mm	B in	H in	L in	Dj6 in	Weight lb
J 40	1½" 40	6.73"	8.94"	14.33"	0.75"	33
J 40 K	1½" 40	7.05"	8.66"	13.74"	0.75"	40
J 1-180	1½" 40	10.57"	12.91"	19.47"	1.10"	97
J 50	2" 50	7.40"	12.91"	16.87"	0.75"	54
J 50 K	2" 50	8.62"	11.24"	16"	0.75"	60
J 2-180	2" 50	11.73"	15.28"	21.81"	1.10"	132
J 60-220	2" 50	15.81"	15.94"	21.89"	1.10"	123
J 3-140	3" 80	10.39"	15.75"	21.59"	1.10"	93
J 3-140 B	3" 80	10.94"	16.22"	20.93"	1.10"	95
J 3-210	3" 80	12.44"	15.90"	23.72"	1.10"	165
J 4-250	4" 100	16.57"	19.57"	29.86"	1.26"	287
J 4-316	4" 100	20.91"	23.03"	34.76"	1.65"	379
J 4-316 K	4" 100	21.06"	25.59"	36.52"	1.65"	480
J 6-250	6" 150	18.70"	24.37"	34.33"	1.26"	448
J 6-355	6" 150	22.76"	26.93"	35.24"	1.57"	617
J 6-400	6" 150	28.74"	32.32"	43.11"	2.17"	895
J 8-300 - J 8-305	8" 200	23.27"	28.90"	42.85"	1.65"	653
J 10-305	10" 250	29.84"	37.09"	50.85"	2.17"	1213

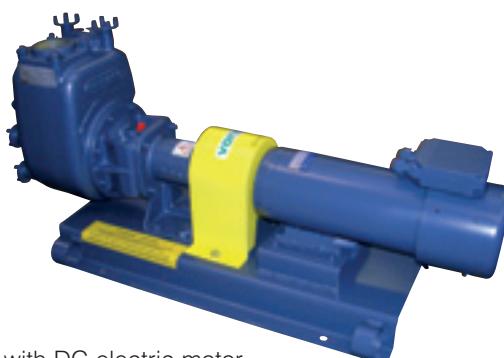
Close-coupled to electric motor

Model	Size in mm	B in	H in	L in	Weight lb
J 40	1½" 40	6.73"	8.94"	18.24"	48
J 40 K	1½" 40	7.05"	8.66"	17.65"	53
J 1-180	1½" 40	11.36"	12.91"	24.21"	135
J 50	2" 50	7.60"	12.91"	22.03"	81
J 50 K	2" 50	8.62"	11.24"	21.16"	93
J 3-140	3" 80	11.14"	15.75"	26.91"	143
J 3-140 B	3" 80	11.57"	16.22"	26.24"	143

ARRANGEMENTS ◀



J 50 with DC electric motor



Electrically driven J 6-400 pump on trailer



Automatic emergency unit for storm water drainage

The specifications, illustrations and data in this leaflet are not binding.
The makers reserve the right to carry out modifications at any time without notice.

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