

Self Priming Centrifugal Pumps

Expand Extend Explore

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Coding System

EJS 40-110-XX-XX-XX		FIC	40 110	vv	XX
		EJS	40 - 110	XX	XX
Series					
EJS – Shaft (bare			-		
EJM – Motor (ele					
EJT – Trash Pump			-		
Discharge Size	Impollo	Norminal Sizo		*	10
	-215	Norminal Size - 150-400			
	0-250				
	0-250	200-300			
Seal Type					
10 - Sic Vs Sic/Vit					
20 – Tc Vs Tc/Vito					
30 – C Vs Cerami	c/viton				
Body / Impeller	/ Shaft M	laterial			
CD - Cast Iron / [Ductile Iro	on / Mild Steel			
CB – Cast Iron / B	Fronze / St	tainless Steel			
CS – Cast Iron / S	tainless S	teel / Stainless St	eel		
SS – Stainless Ste	el / Stain	less Steel / Stainle	ess Steel		
BB – Bronze / Bro	onze / Stai	inless Steel			
Special Option					

Options on request

CB = Cast Iron pump, Bronze Impeller, Bronze Wear Plate and Stainless Steel Shaft and Internal and External Hardware; Nitrile Rubber Gaskets, Silicon Carbide Mechanical Seal.

CS = Cast Iron pump, Stainless Steel Impeller, Stainless Steel Wear Plate and Stainless Steel Shaft and Stainless Steel Internal and External Hardware; Nitrile Rubber Gaskets, Silicon Mechanical Seal.

SS = Complete Stainless Steel Pump, Viton Rubber Gaskets, Silicon Carbide Mechanical Seal.

BB = Complete Marine Bronze Pump, Stainless Steel Shaft and Internal and External Hardware; Nitrile Rubber Gaskets, Silicon Carbide Mechanical Seal.

Working Principle for EJ series (EJS/EJM/EJT):

- The main components of "EJT" series Self-Priming Centrifugal Pump are: Body, Back Casing, Impeller, Wear Plate, Shaft, Bearing Housing & Stuffing Box.
- The Impeller Design is "semi-open" type with back vane which helps in balancing the front "Axial Thrust".
- The Shaft Sealing is by a Mechanical Seal in Silicone or Tungsten Carbide. The Shaft is supported by 2 Heavy Duty Grease Lubricated Anti-Friction Ball Bearings to counter the Axial and radial Forces.
- The Clearance between Impeller and Wear Plate is less than 0.5 mm; so when there is wear, the Wear
 Plate could be adjusted closer to Impeller thus maximizing the efficiency and achieving a better per
 formance again.
- The Pump Suction Port is fitted with a "non return flap valve", which has the function of maintaining the
 pump casing and suction line filled of liquid when the pump is not in operation, this will help the pump
 in priming faster as soon as operated.
- The Pump Casing must be totally filled manually at the first start only. Operating the pump, the impeller will rotate creating an emulsion of liquid and air, the air will be then evacuated from the suction line through the discharge line priming the pump.

EJS Self-Priming Centrifugal Pumps

Port Size: 11/2" - 8" Power 1.1- 45 Kw

Applications: EJS pumps are used when one or more of the following are required: self-priming, solids handling, resistance to abrasion. EJ pumps can handle liquids up to a viscosity of about 50 mm2/s (cSt).

Industry: transfer of neutral, acid or alkali clean or dirty liquids, liquids containing sand, mud or solids in suspension, low viscosity petroleum products, clean or dirty solvents, milk of lime, caustic soda, washing, cooling, circulation, smoke scrubbing, emergency duty.Civil engineering: sewage pumping, fire fighting.

Marine: loading and unloading, bilge pumping, fire fighting, stripping, sanitary duty, circulation.

Waste treatment: pumping polluted, hot or corrosive wastewater containing sand, mud or solids in suspension, dosing neutralizing liquids, pumping out settled sludge.

* Available in motor coupled pumps in the following models: EJM40-110, EJM50-120, EJM80-215, EJM100-250

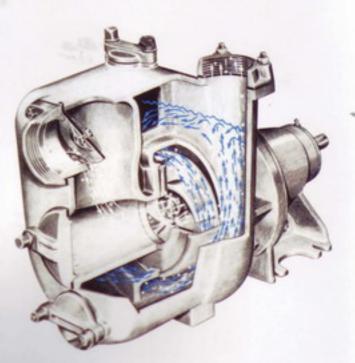
Standard Material

Cast Iron Construction: Complete Cast Iron pump, Ductile Iron Impeller, Cast Iron wear plate (optional with Rubber Plate) and Mild steel shaft with protection sleeve; Nitrite Rubber gaskets, Silicon Carbide Mechanical Seal.

Other options: Stainless steel and Bronze wetted parts. CB, CS, SS, BB

Mechanical Seal: Silicon Carbide Vs Silicon Carbide / Viton . Other options available.

Air (white arrows) is drawn into the pump by the vacuum produced as the impeller rotates and is emulsioned with the liquid (blue arrows) contained in the pump casing. The air/liquid mixture is driven into the priming chamber where the air, which is less dense, separates out and vents through the delivery line while the liquid, due to the higher density, falls back and is recirculated. When all the air has been evacuated from the suction line, the pump primes and operates like a normal centrifugal pump. It can also handle a mixture of air and liquid. The check valve mounted in the pump suction port serves two purposes: it prevents the liquid from draining out of the suction line when the pump is not in operation, and if the suction line is drained by accident, enough liquid is retained in the pump casing for the pump to reprime. The delivery line must allow the air drawn from the suction line to vent to atmosphere.

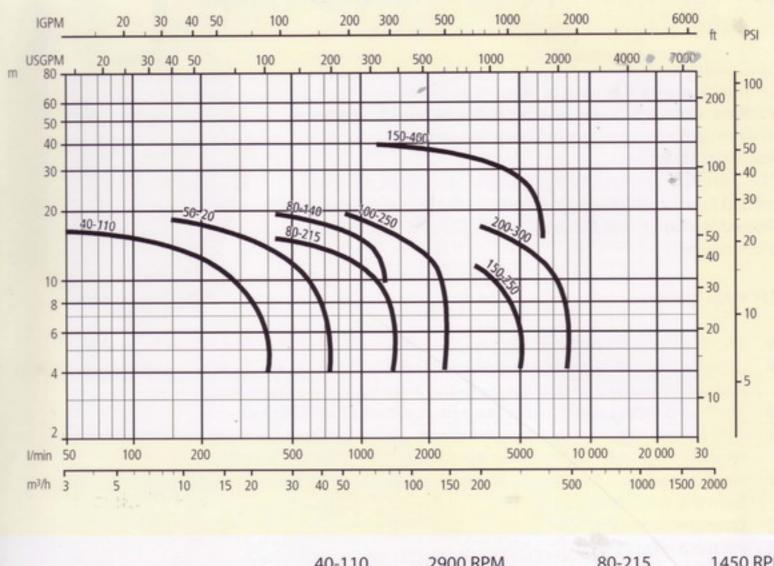


Pump Model	Orific	es Size	Solid Size	50HZ									
	mm	in	Ømm	Capacity m³/h	Head	RPM	Motor kW						
EJS40-110	40	1½″	20	22 15 5	5.5 11 15	2900	1.1						
EJS50-120	50	2"	25	44 30 10	5 12 18	2900	2.2						
EJS80-140	80	3″	28	70 40 20	13 18 20	2900	4						
EJS80-215	80	3"	40	80 45 20	7 13 15	1450	4						
EJS100-250	100	4"	50	150 80 40	7 15 18	1450	7.5						
EJS150-250	150	6"	76	300 200 80	5 11 15	1450	11						
EJS150-400	150	6″	50	380 200 80	18 36 38	1450	45						
EJS200-300	200	8"	60	480 320 120	8 15 20	1450	22						

Note:

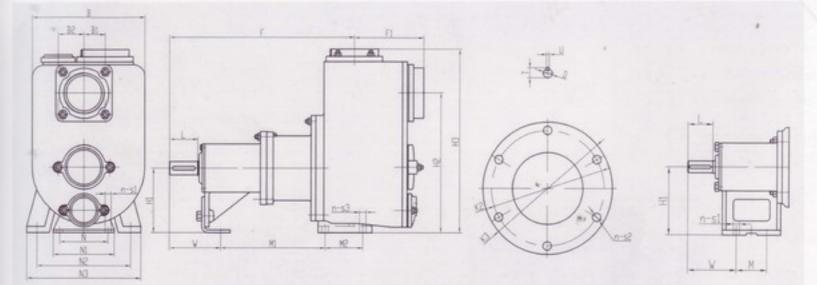
Check with factory for the availability of following model: EJS40-180, EJS 50-180, EJS50-220, EJS80-250, EJS250-300, EJS300-400

Performance Curve



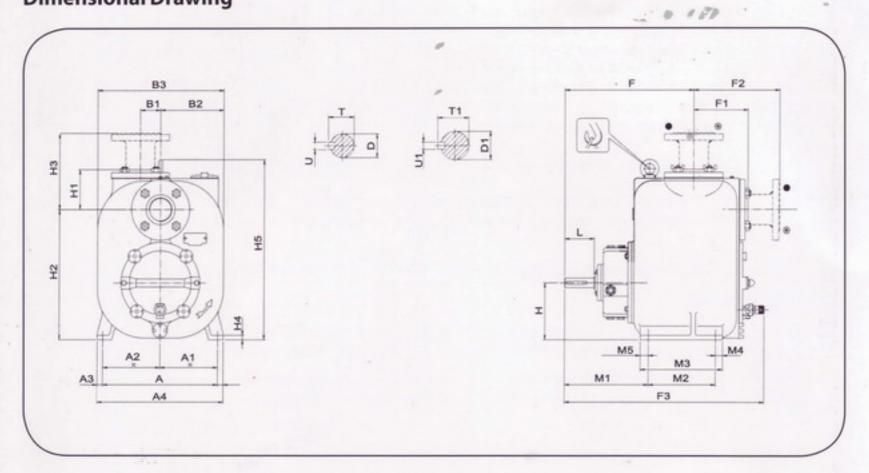
40-110	2900 RPM		80-215	1450 RPM
50-120	2900 RPM		100-250	1450 RPM
80-140	2900 RPM		150-250	1450 RPM
			150-400	1450 RPM
		*	250-300	1450 RPM

Dimensional Drawing



	0	81	B2	83	Н	Н2	H3	N	N ₁	N ₂	N3	F	F1	ι	W	м	M1	M2	T	U	Ð	К2	K3	n-s1	n-s2	n-s3
EJ540-110	-40	30	40	165	90	163	237	80	102			263	75	40	70	50			21.5	6	19			4-010		
EJ550-120	50	36	45	210	110	206	326	103	128			300	114	40	80	50			21.5	6	19			4-012		
EJ580-140	80	43	55	240	135	290	383	90	130	200	243	390	148	60	109		222	80	31	8	28			2-014		4-014
EJ580-215	80	70	85	302	160	310	410	150		245		458	155	60	110	125	150	100	31	8	28			4-014	4-014	
EJ5100-250	100	160	85	420	200	355	485	110	160	295	160	470	275	80	130		355	95	35	10	32			2-015		4-014
EJ5150-250	150	90	140	480	250	455	590	110	160	350	410	570	280	80	130		330	170	35	10	32	240	276	2-015	6-018	4-018
EJ5150-400	150	280	307.5	730	350	645	821	150		450	510	698.5	374	110	181		477.5	200	59	16	55	240	276	2-017	8-019	4-018
EJ5200-300	200	75	175	575	315	535	690	150	200	450	\$10	822	29Ô	110	165		496	200	45	12	42	280	320	2-018	8-018	4-018

Dimensional Drawing



	A	A1	A2	A3	A4	B1	B2	B3	D	D1	F	F1	F2	F3	н
EJT 50	295	147.5	147.5	20	335	45	170	340	28j6	28.6j6	355.5		163	583.5	152.5
EJT 80	394	197	197	19	432	70	216	432	32j6	38.1j6	436.5	185	293.5	677.5	190.5
EJT 100	457	228.5	228.5	21.5	500	70	251	502	32j6	38.1j6	495.5	227	317.5	772.5	222
EJT 150	527	263.5	263.5	25.5	578	70	289	578	42j6	38.1j6	495	292	429	808	257
EJT 200	635	317.5	317.5	39.5	714				55j6	44.5j6	610.5		413	978.5	330
-	H1	H2	НЗ	H4	H5	L	M1	M2	M3	M4	M5	т	T1	U	U1
EJT 50		343	112.5	18	489.5	87	224	182.5	220	24	13.5	31	31.4	8	6.4
EJT 80	133.5	432	255.5	15	599	100	284	228.5	280	24	27.5	35	42.2	10	9.5
EJT 100	159	495	248	20	691	127	294	279.5	330	25	25.5	35	42.2	10	9.5
EJT 150	191	568	328	25	788	127	293.5	279.5	330 •	25	25.5	45	42.2.	12	9.5
EJT 200		723.5	344.5		964	165	407	305	384	40.5	38.5	59	49.2	16	9.5

03/2007

EJT Series Self Priming Centrifugal Pumps

Port size: 2" to 8" Power: 1.5 to 30.0 kW

Applications:

EJT pumps are used when one or more of the following specifications are required: self-priming, solids, handling, resistance to abrasion for Sewage and Industrial Waste water.

Standard Materials

CI = Complete Cast Iron pump, Stainless Steel Shaft and Internal and External Hardware; Marine Brass Suction and Delivery Tapped Flanges, Nitrile Rubber Gaskets, Silicon Carbide Mechanical Seal.

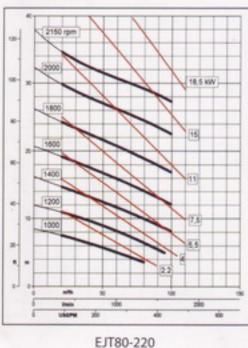
EJT Main features

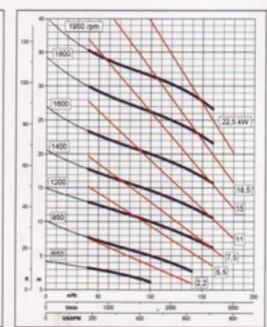
- Check valve easily replaced through the front cover without dismounting the pipework.
- Impeller inspection cover easily removed without tools, and without dismounting the suction and delivery pipes, for easy access to the impeller and mechanical seal.
- The pump casing and impeller can easily be cleaned and flushed.
- Oil bath self-aligning mechanical seal with silicon carbide faces (tungsten carbide available on request) with shaft sleeve and internal hardware in AISI 304 stainless steel.
- Double mechanical seal, with intermediate discharge to atmosphere, to isolate the bearing oil from the seal lubrication oil.
- Oversized bearings.
- Pressure relief valve.
- Mechanical seal oil sight gauge, bearing oil sight gauge.
- Drives: 50 Hz or 60 Hz electric motors, diesel engines, belt drives, hydraulic motors. (consult factory for 60 Hz)

Pump Model	Port Size		Solid Size	50 Hz							
	mm	in	mm	Capacity m ³ /h	Head m	RPM	kW				
EJT50-160*	50	2"	38	32 20 10	5.5 7 8.5	1450	1.5				
EJT80-220	80	3″	63.5	100 50 20	8 14 16	1450	5.5				
EJT100-250	100	4"	76	160 100 50	10 16 19	1450	11				
EJT150-300	150	6"	76	330 200 70	14 23 28	1450	30				
EJT200-375*	200	8"	76	440 300 200	5 11 15	950	22				

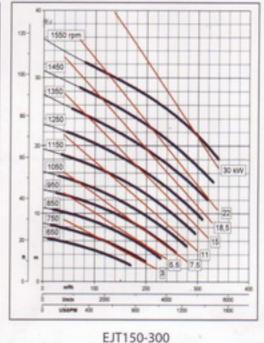
Pump performances

* Check with factory





EJT100-250



EJT EJT EJT EJT EJT

EJT EJT

EJT