



Self-Priming
Centrifugal Pumps

EJseries



Coding System

e.g. **EJS 40 - 110 XX XX XX**
EJT 50 - 160
EJM 80 - 140 10/CD A2 - 0110

XXX XX - XXX XX/XXX XXXX XX

Series

EJS = Shaft Sewage Bare Pumps
EJT = Large Flow Trash Pumps
EJU = High Head Trash Pumps
EJM = Mono Block Sewage Pumps

Discharge Size - Impeller Nominal Size

40-110	80-140	80-280	100-280	150-318	200-375
50-120	80-215	100-248	150-250	150-400	250-375
50-160	80-223	100-250	150-315	200-300	300-457

Seal Type

10 = Tc Vs Sic/Viton
20 = Tc Vs Tc/Viton
30 = C Vs Ceramic / Viton

Tc = Tungsten
C = Carbon
Sic = Silicon Carbide

Body/Impeller/Shaft Material

Code	Casing	Impeller	Shaft
CD	CI	Ductile Iron	Steel
CA	CI	A 216 (Carbon Steel)	Steel
CAD	CI	Harden Iron	SS304
CB	CI	Bronze	SS304
C20	CI	CD4MCU	SS304
CS	CI	SS304	SS304
CK	CI	SS316	SS316
BB	Bronze	Bronze	SS316
D4MC	Duplex SS	Duplex SS	SS316
SS	SS304	SS304	SS304
KK	SS316	SS316	SS316
ADI	Harden Iron	Harden Iron	SS304
HH	Hastelloy	Hastelloy	SS316

Special Option Engine

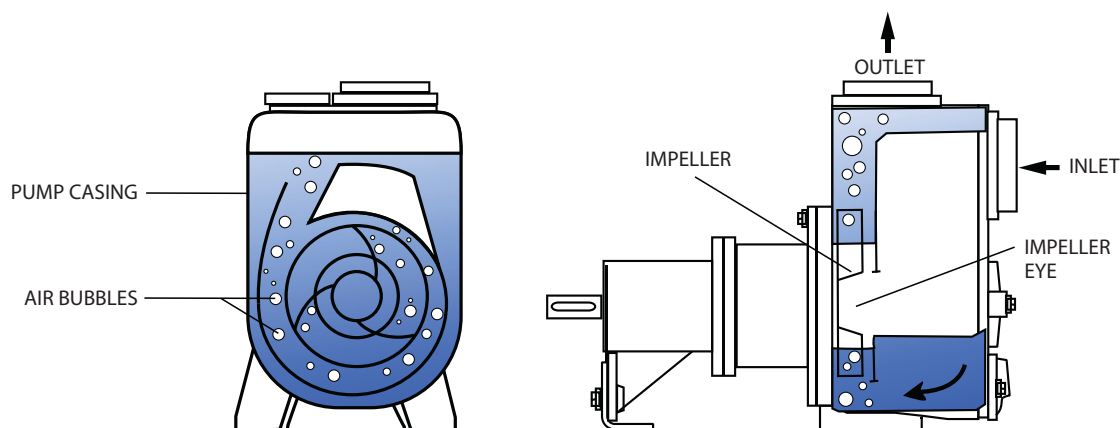
EB = Engine on base plate **A2 = 50 Hz/2 Pole **B4 = 60 Hz/4 Pole
ET1 = Engine on Trolley - off road **A4 = 50 Hz/4 Pole **ZZ = Special Motor/Voltage
ET2 = Engine on Trolley - on road **B2 = 60 Hz/2 Pole

Motor Rating

e.g. 0005 = 0.55 kW, 0055 = 5.5 kW, 0500 = 50 kW, 5000 = 500 kW

Note: ** Applicable to EJM pumps only

General Information



Principal of Self Priming

Upon starting the pump, pressure drop occurs at the eye of the impeller which will give rise to pressure differences within the pump system (pump casing & suction pipe) and outside the pump system. As the pressure continues to drop in the pump system, a mixture of liquid and air will start to flow into the pump due to higher atmospheric pressure outside the pump system.

The mixture of liquid and air will flow through the casing chamber designed like a diffuser through the inlet and then to the discharge port. At the discharge port, air being lighter will be extricated through the discharge piping. The liquid being heavier will fall back into the pump chamber and re-mix with the inlet liquid. This process is repeated till air in the suction pipe and pump casing is fully emptied and filled with liquid. At this point, the pump will then be fully primed and achieve the self-priming effect.

Application:

- **Industry**
 - Waste water treatment
 - Transfer of low viscosity petroleum products
 - Recovery of dirty solvents
 - Emergency duty
- **Civil Engineering / Civil Defence**
 - Sewer by-pass
 - Recovery of hazardous liquids
 - Flood drainage
- **Marine Duty**
 - Bilge pumping
 - Sanitary duty
 - Loading and unloading
 - Washing
 - Fire fighting
- **Sewage**
 - Lift stations
 - Sewage by-pass
 - Treatment
- **Construction**
 - Dewatering
 - Ground water control
 - Water supply
- **Agriculture**
 - Surface irrigation
 - Liquid manure
 - Distribution of liquid animal feed

EJS



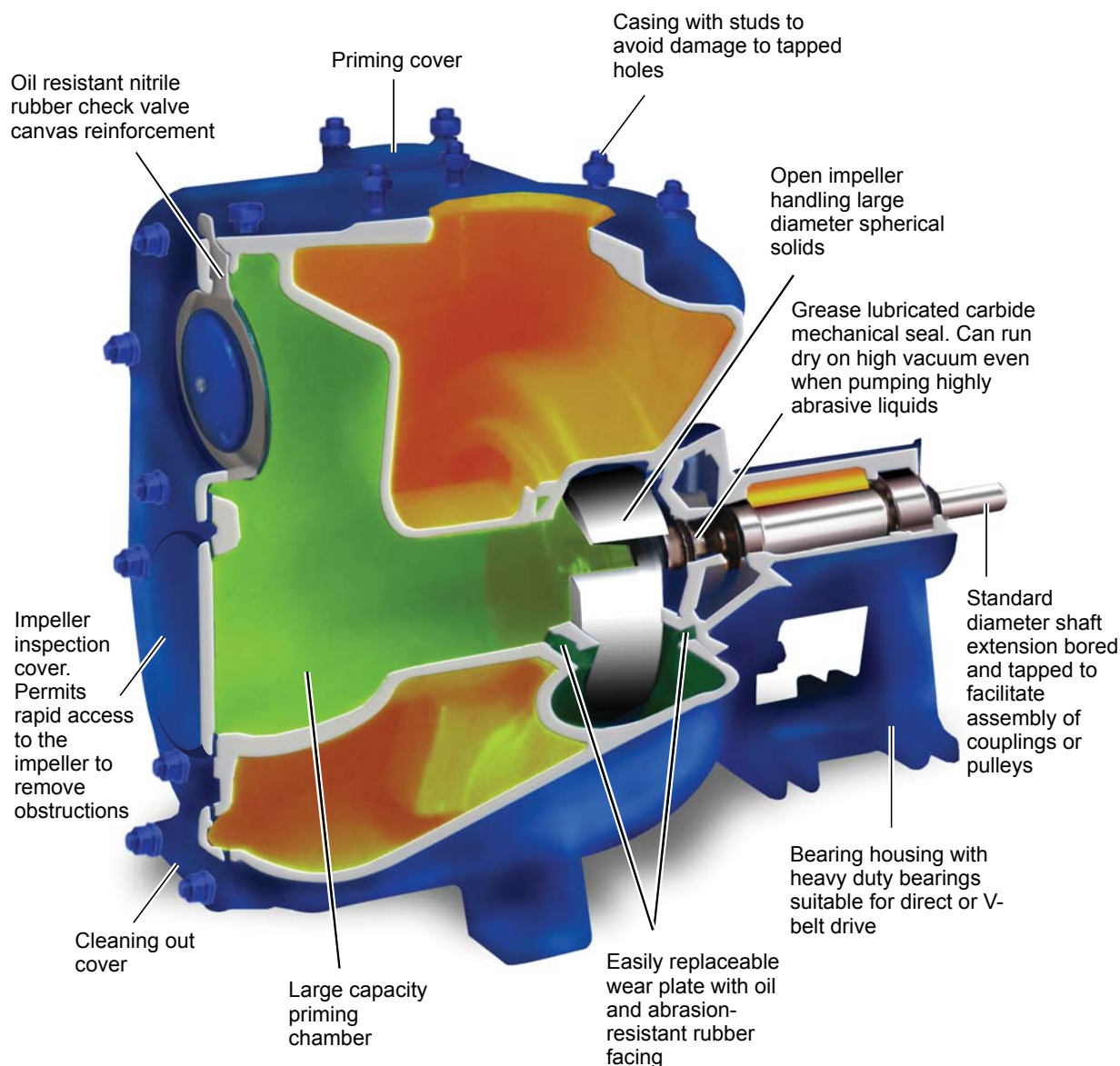
EJT/EJU



EJM



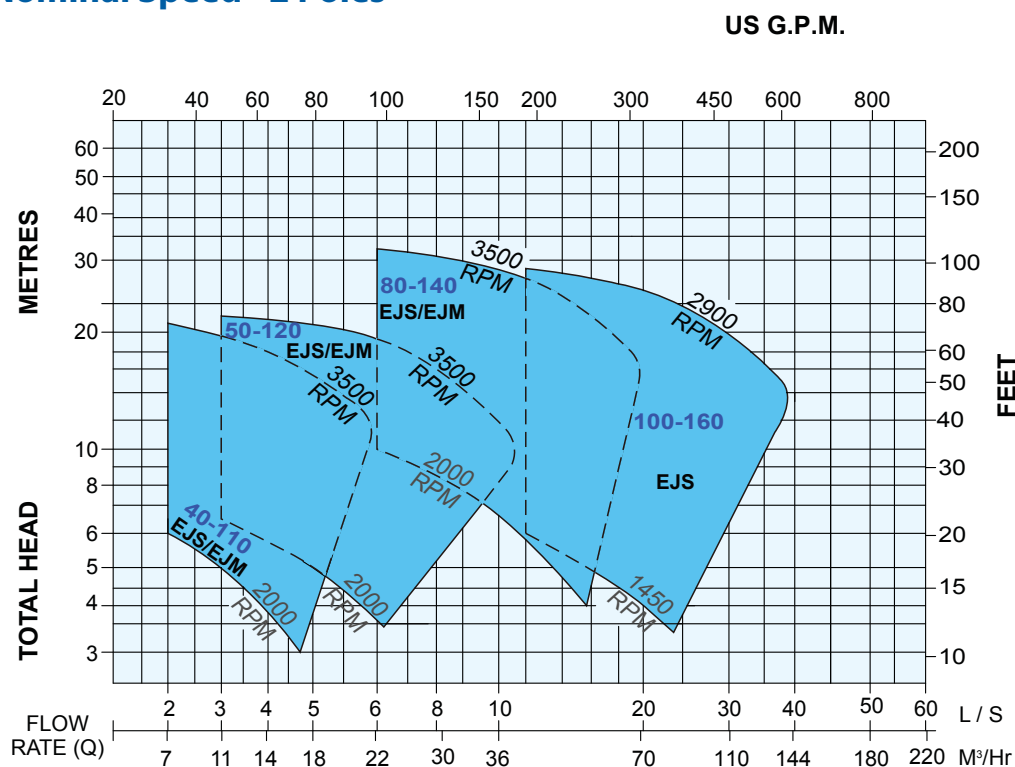
Sectional Drawing



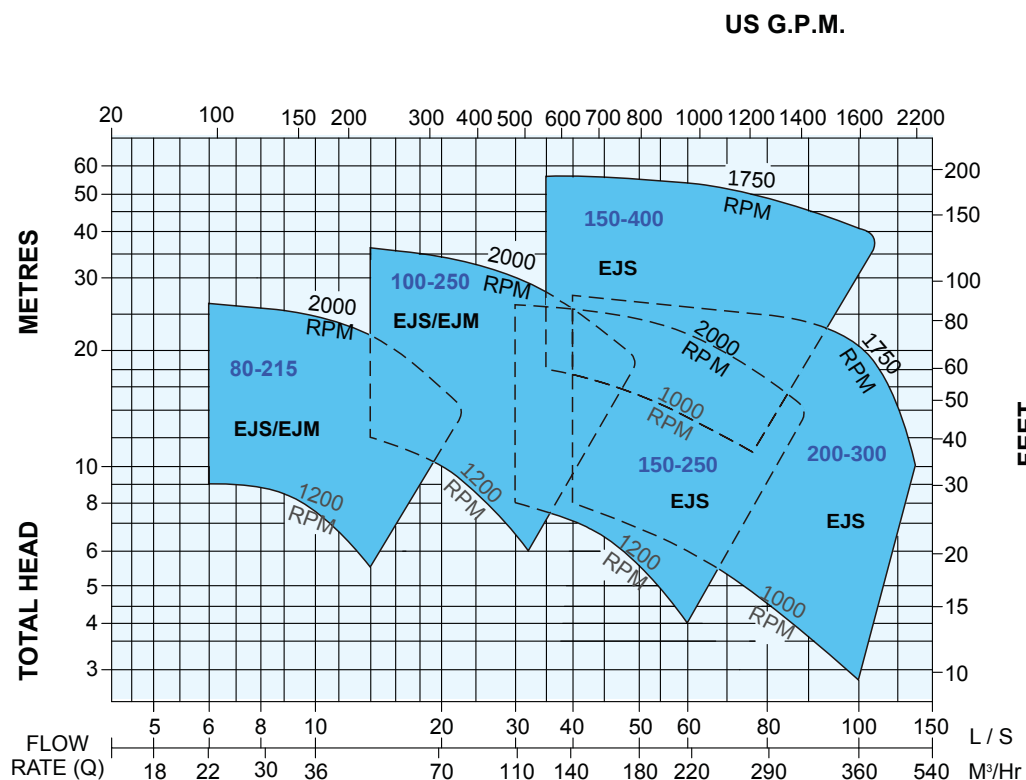
Pump Model	Port Size		Solid Size Ø mm	50 Hz							
	mm	in		Capacity m ³ /hr			Head m			RPM	Motor kW
EJS/EJM 40-110	40	1 ½	20	20	15	5	7.5	10.7	15	2900	1.1
EJS/EJM 50-120	50	2	25	32	25	10	8.5	11	15.7	2900	2.2
EJS/EJM 80-140	80	3	28	60	40.5	20	13.5	18.5	22	2900	4
EJS/EJM 80-215	80	3	40	60	39.5	19	8	11.5	13.8	1450	4
EJS 100-160	100	4	45	135	110	52.5	16.5	21.7	27.3	2900	15
EJS/EJM 100-250	100	4	50	130	82	42	10	15.5	18.7	1450	7.5
EJS 150-250	150	6	76	215	150	90	8.7	11.7	13.7	1450	11
EJS 150-400	150	6	50	320	200	90	29	36	38.6	1450	45
EJS 200-300	200	8	60	412	304	116	8	14	19.2	1450	22

Family Curves

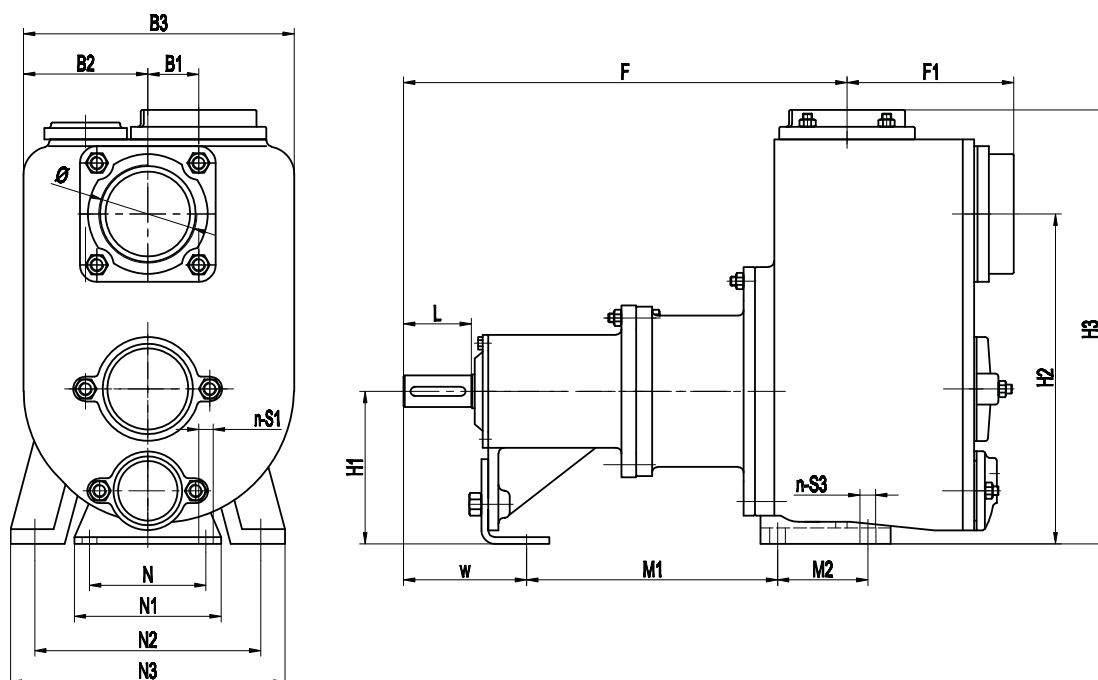
Nominal Speed - 2 Poles



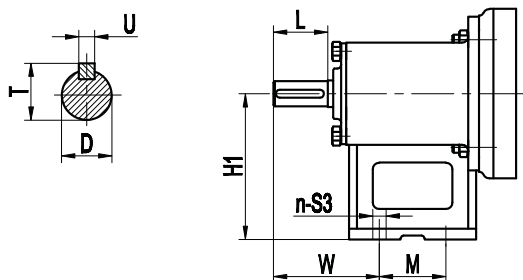
Nominal Speed - 4 Poles



Installing Dimensions

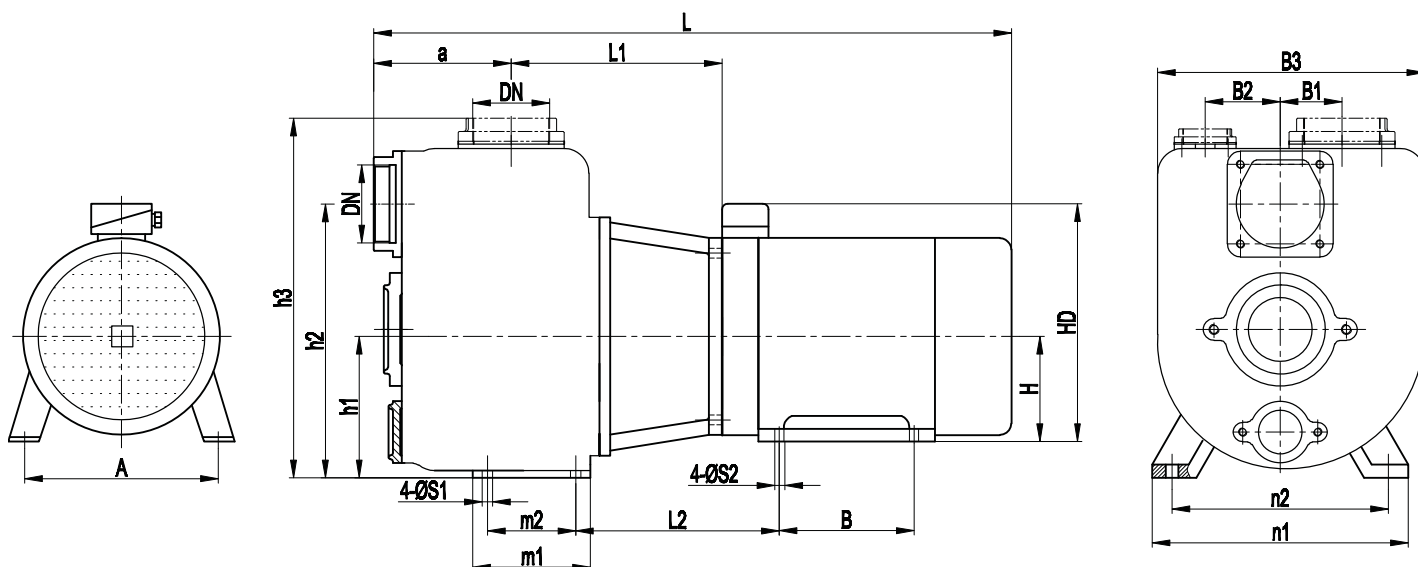


Pump Model	Port Size		Pump Dimension								Foot Dimension										Net Weight (kg)
	mm	in	B1	B2	B3	H1	H2	H3	F	F1	N	N1	N2	N3	W	M	M1	M2	n - S1	n - S3	
EJS 40-110	40	1 1/2	30	80	173	90	163	240	263	75	80	102	--	--	70	50	--	--	4-Ø10	--	19
EJS 50-120	50	2	36	94	210	110	206	306	300	114	103	128	--	--	80	50	--	--	4-Ø12	--	31
EJS 80-140	80	3	45	110	240	132	289	381	392	148	90	--	200	245	109	--	222	80	4-Ø14	4-Ø14	55
EJS 80-215	80	3	70	139	303	160	310	410	458	155	150	--	245	290	110	125	150	100	4-Ø14	4-Ø14	75
EJS 100-160	100	4	37	150	300	160	341	462	442	180	150	182	--	--	110	125	--	--	4-Ø14	--	130
EJS 100-250	100	4	160	180	420	200	350	487	469	275	110	--	295	340	138	--	347	95	2-Ø15	4-Ø14	148
EJS 150-250	150	6	90	220	480	250	454	590	566	292	110	--	350	410	138	--	322	170	2-Ø15	6-Ø18	261
EJS 150-400	150	6	280	280	700	350	645	795	700	365	150	--	450	510	180	--	478	200	2-Ø18	8-Ø18	445
EJS 200-300	200	8	75	288	575	315	535	720	822	232	150	--	450	510	165	--	499	200	2-Ø18	8-Ø18	395

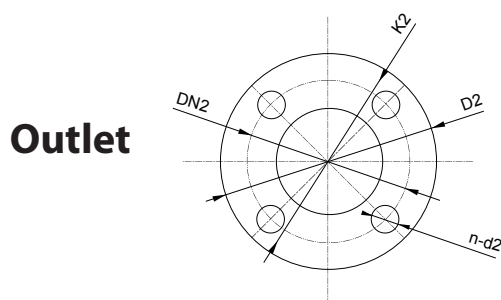
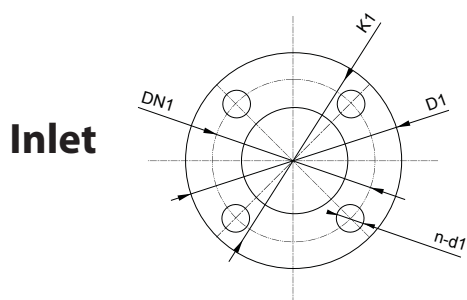


Pump Model	Shaft End			
	L	T	U	D
EJS 40-110	40	21.5	6	19
EJS 50-120	41	21.5	6	19
EJS 80-140	60	31	8	28
EJS 80-215	60	31	8	28
EJS 100-160	60	31	8	28
EJS 100-250	80	35	10	32
EJS 150-250	80	35	10	32
EJS 150-400	110	59	16	55
EJS 200-300	110	45	12	42

Installing Dimensions



Model	B1	B2	B3	h1	h2	h3	H	HD	m1	m2	n1	n2	A	B	a	L1	L2	L	s1	s2
EJM 40-110	30	74.5	165	95	167.5	242	80	210	--	--	--	--	125	100	75	153.5	--	473.5	10	10
EJM 50-120	36	94	210	105	201	321	90	235	--	--	--	--	140	125	114	185	--	609	12	10
EJM 80-140	43	110	240	135	290	383	112	285	115	80	243	200	216	140	148	202.5	201	690.5	14	12
EJM 80-215	70	164	302	160	310	410	112	285	133	100	290	245	190	140	156	239	226	735	14	12
EJM 100-250	160	179	420	200	355	485	132	325	145	95	340	295	216	178	275	226.5	322	936.5	14	12



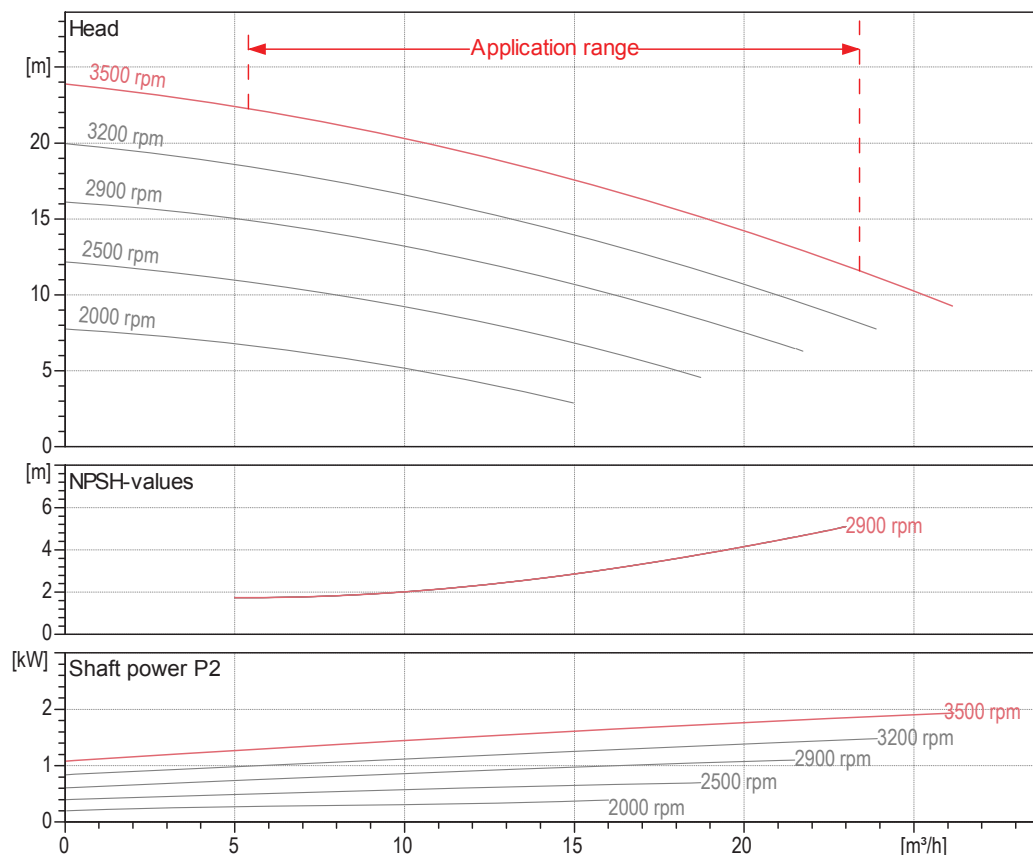
Pump Model	Suction/Inlet Flange (mm)				Discharge/Outlet Flange (mm)			
	DN1	K1	D1	n - d1	DN2	K2	D2	n - d2
EJS/EJM 40-110	RP 1 ½	--	--	--	RP 1 ½	--	--	--
EJS/EJM 50-120	RP 2	--	--	--	RP 2	--	--	--
EJS/EJM 80-140	RP 3	--	--	--	RP 3	--	--	--
EJS/EJM 80-215	RP 4	--	--	--	RP 4	--	--	--
EJS/EJM 100-250	RP 4	--	--	--	RP 4	--	--	--
EJS 100-160	RP 4	--	--	--	RP4	--	--	--
EJS 150-250	Ø150	Ø240	Ø276	6 - Ø18	Ø150	Ø240	Ø276	6 - Ø18
EJS 150-400	Ø150	Ø240	Ø276	6 - Ø18	Ø150	Ø240	Ø276	6 - Ø18
EJS 200-300	Ø205	Ø280	Ø320	8 - 18	Ø205	Ø280	Ø320	8 - Ø18

EJS/EJM 40-110 Performance Curve

Impeller Dia. 110 mm

Max Solids 20 mm

R.P.M. 2000 to 3500 rpm

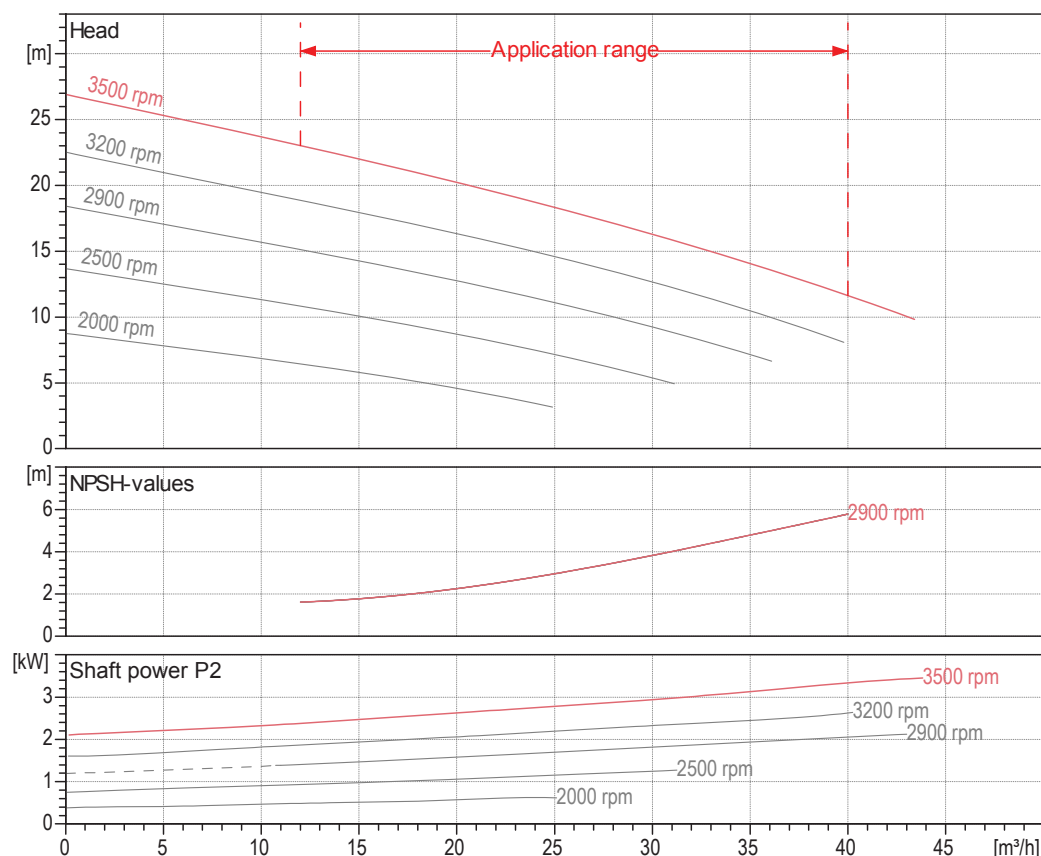


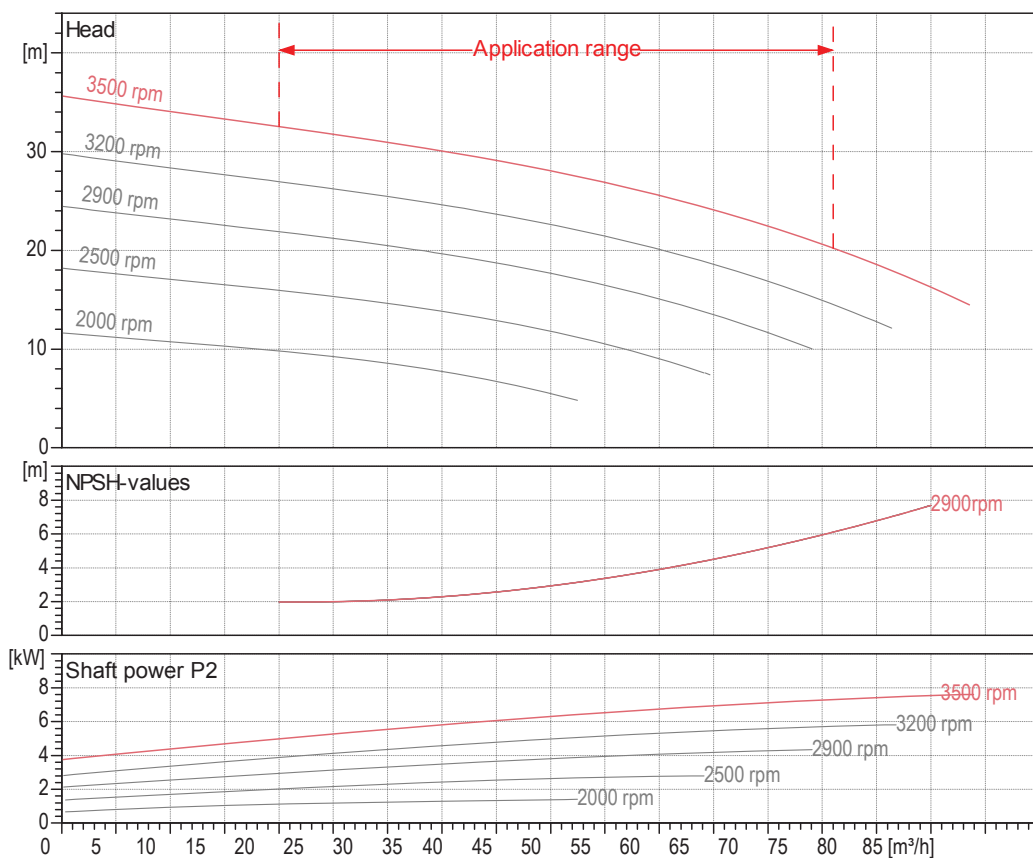
EJS/EJM 50-120 Performance Curve

Impeller Dia. 120 mm

Max Solids 25 mm

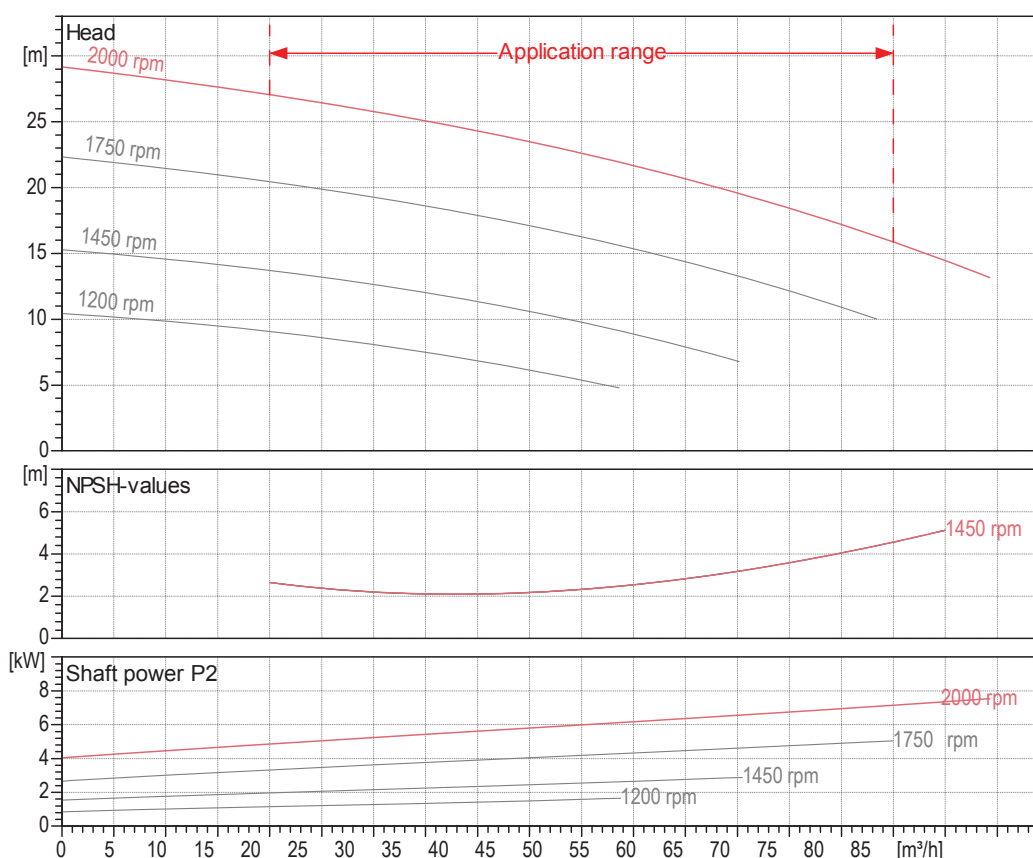
R.P.M. 2000 to 3500 rpm





EJS/EJM 80-140 Performance Curve

Impeller Dia. 140 mm
Max Solids 28 mm
R.P.M. 2000 to 3500 rpm



EJS/EJM 80-215 Performance Curve

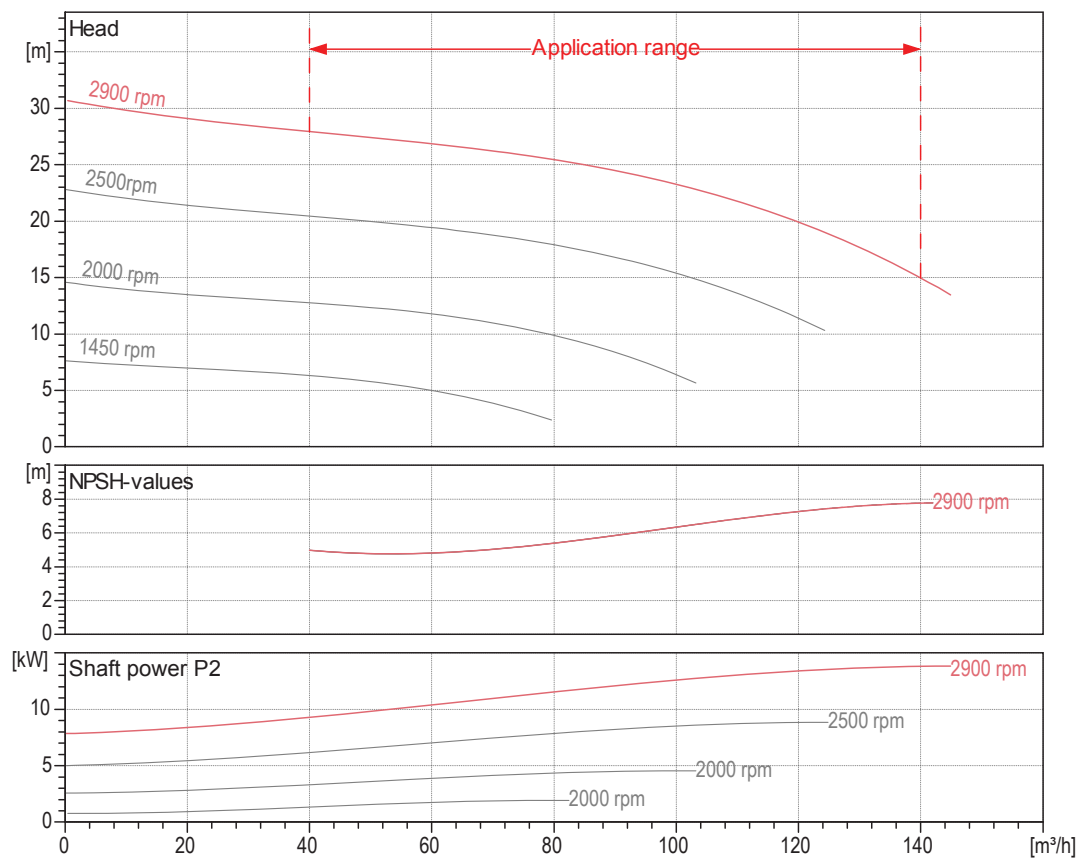
Impeller Dia. 250 mm
Max Solids 76 mm
R.P.M. 1200 to 2000 rpm

EJS 100-160 Performance Curve

Impeller Dia. 160 mm

Max Solids 45 mm

R.P.M. 1450 to 2900 rpm

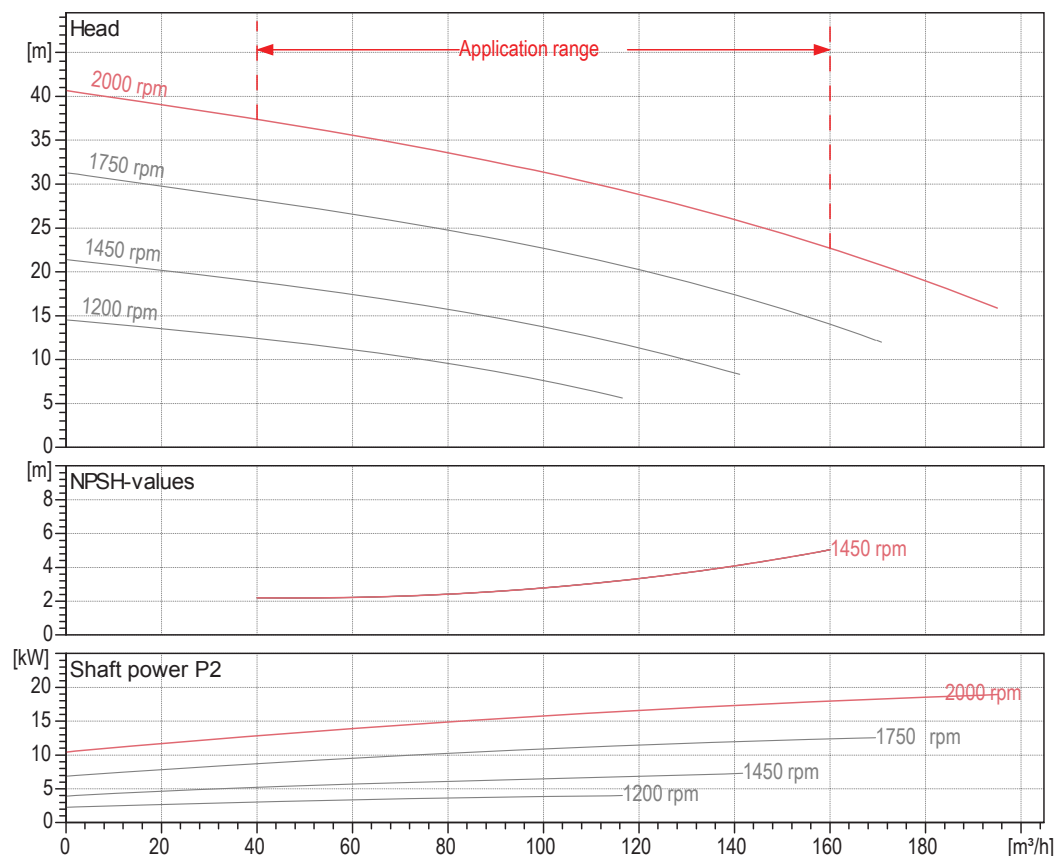


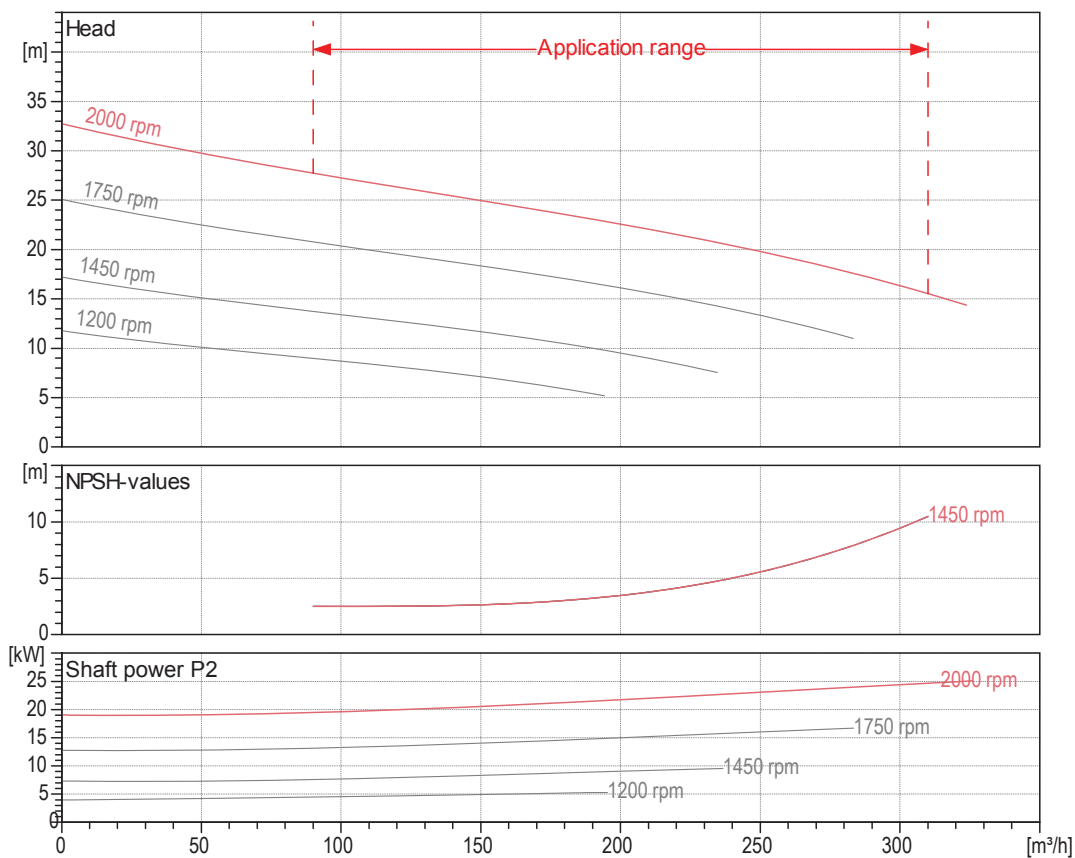
EJS/EJM 100-250 Performance Curve

Impeller Dia. 250 mm

Max Solids 50 mm

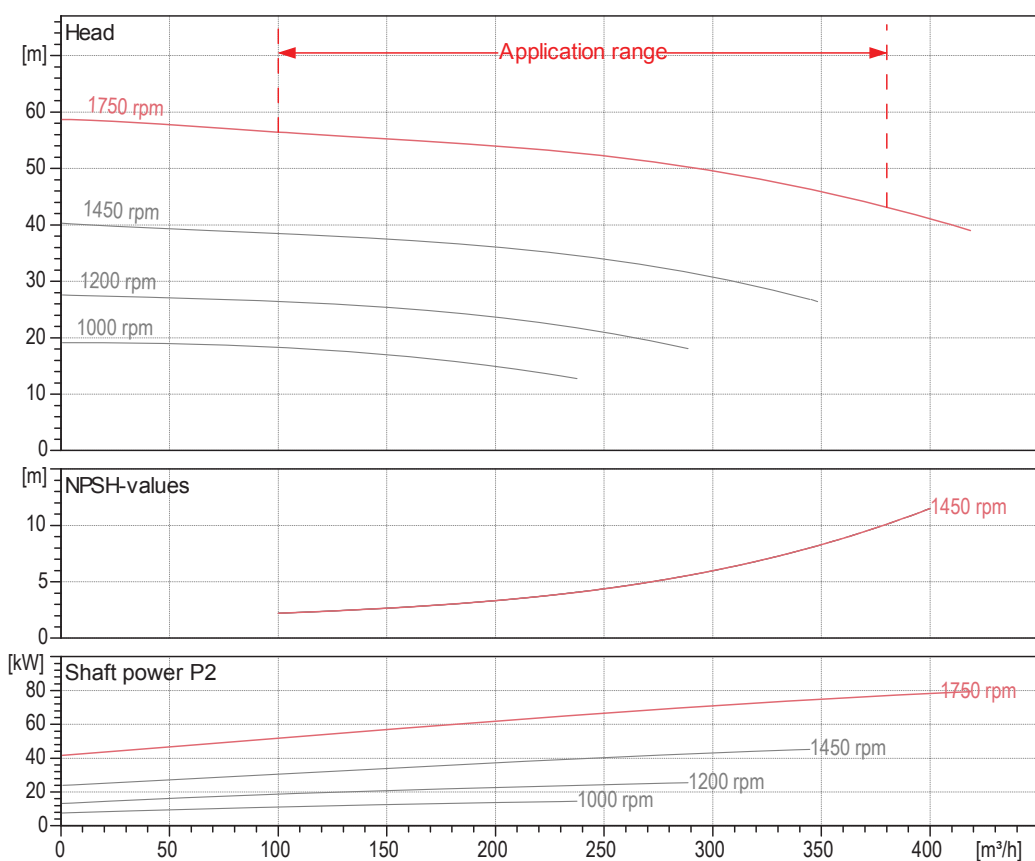
R.P.M. 1200 to 2000 rpm





EJS 150-250 Performance Curve

Impeller Dia. 250 mm
Max Solids 76 mm
R.P.M. 1200 to 2000 rpm



EJS 150-400 Performance Curve

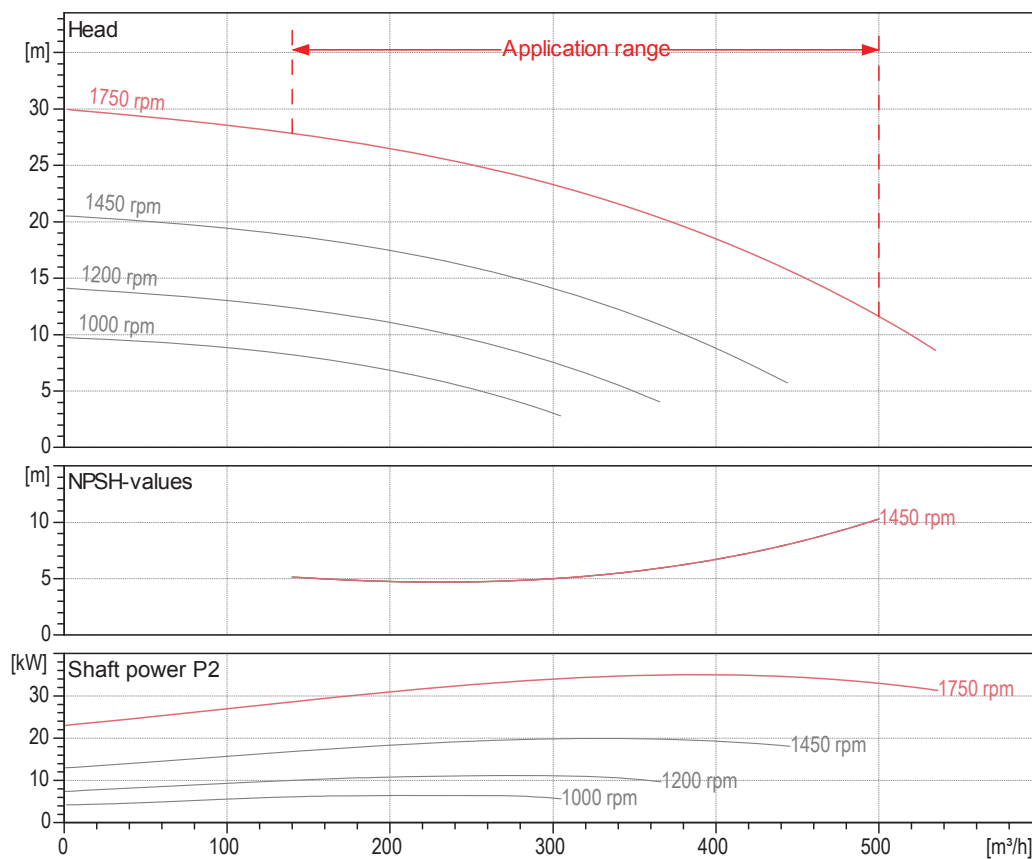
Impeller Dia. 400 mm
Max Solids 50 mm
R.P.M. 1000 to 1750 rpm

EJS 200-300 Performance Curve

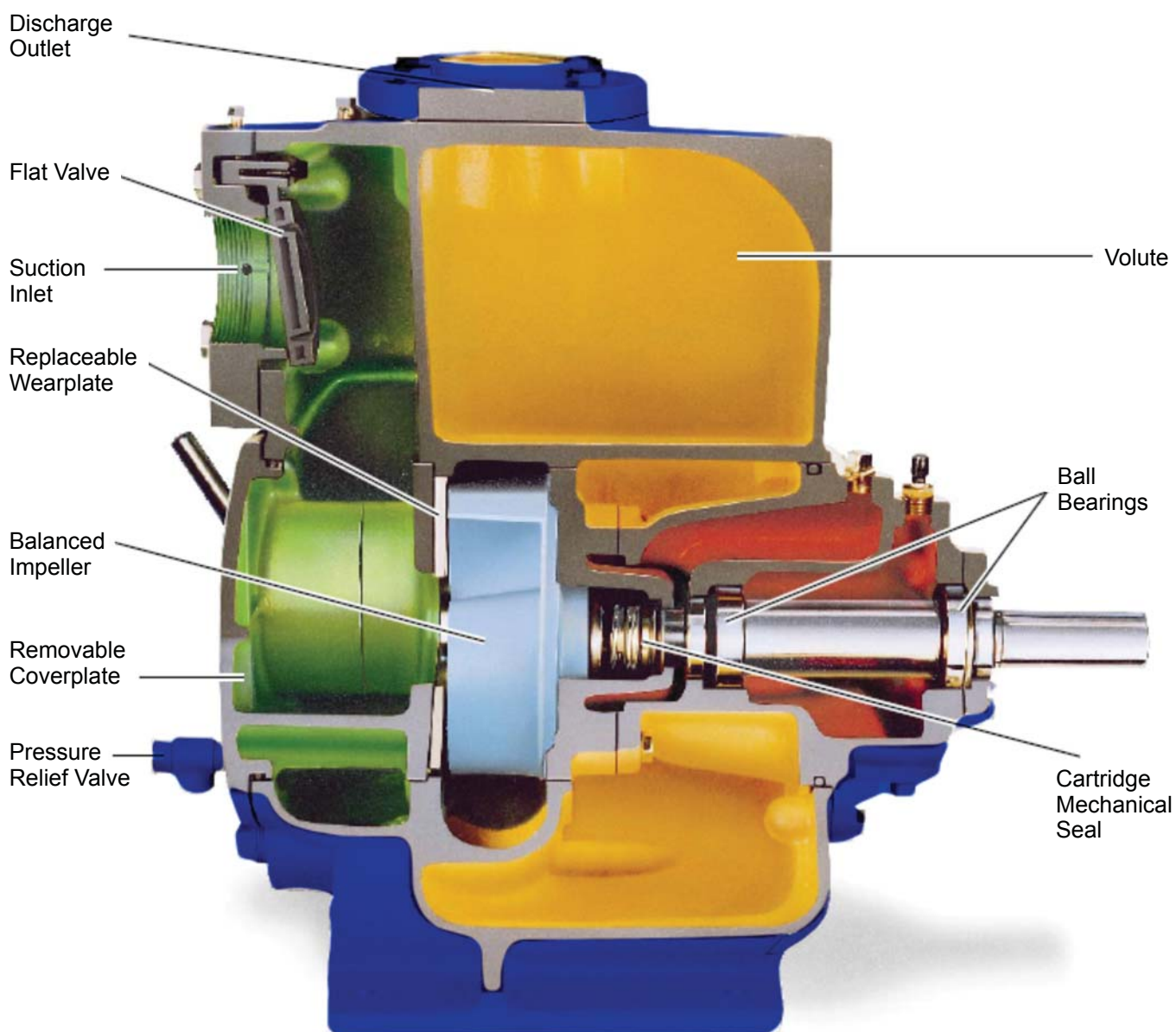
Impeller Dia. 300 mm

Max Solids 60 mm

R.P.M. 1000 to 1750 rpm



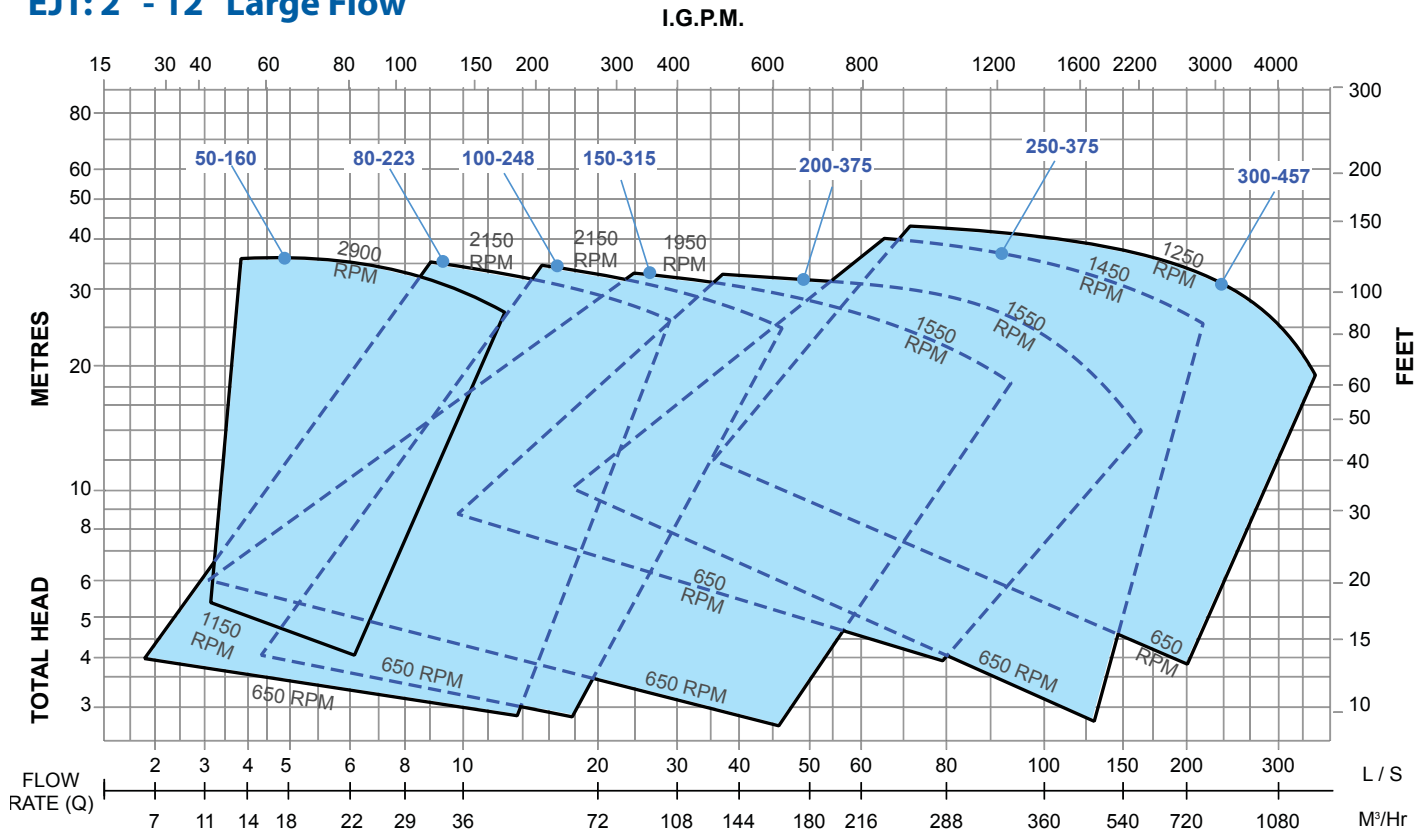
Sectional Parts



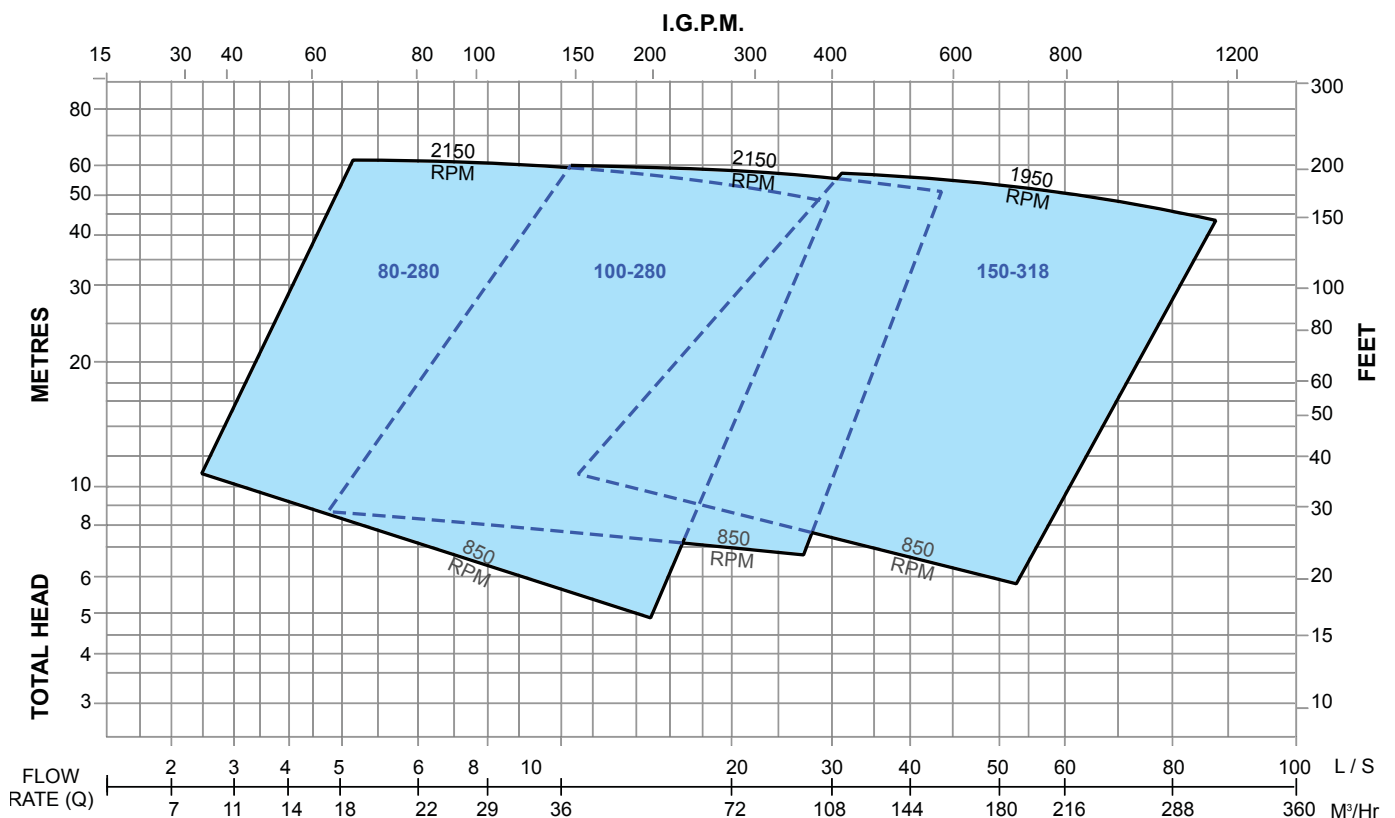
Pump Model	Port Size		Solid Size Ø mm	50/60 Hz							
	mm	in		Capacity m ³ /hr			Head m			RPM	Motor kW
EJT 50-160	50	2	44	47	30	14	27	31	35	2900	15
EJT 80-223	80	3	64	105	70	31	25	30	34	2150	25
EJT 100-248	100	4	76	180	110	55	24	30	35	1950	30
EJT 150-315	150	6	76	330	225	85	18	24	32	1550	40
EJT 200-375	200	8	76	590	360	140	12	26	33	1550	75
EJT 250-375	250	10	76	760	470	220	23	33	39	1450	100
EJT 300-457	300	12	76	1250	800	250	19	34	43	1250	125
EJU 80-280	80	3	21	85	55	20	49	58	61	2150	30
EJU 100-280	100	4	29	145	100	35	74	55	60	2150	50
EJU 150-318	150	6	32	305	210	98	44	53	58	1950	75

Family Curves

EJT: 2" - 12" Large Flow

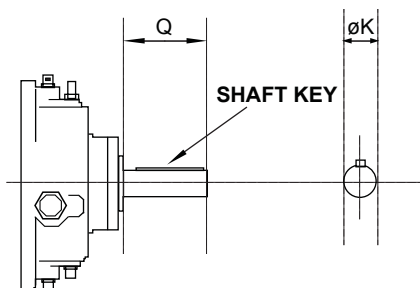


EJU: 3" - 6" High Head

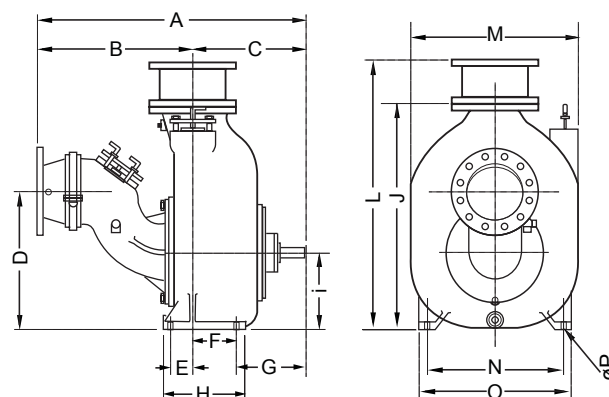


Installing Dimensions

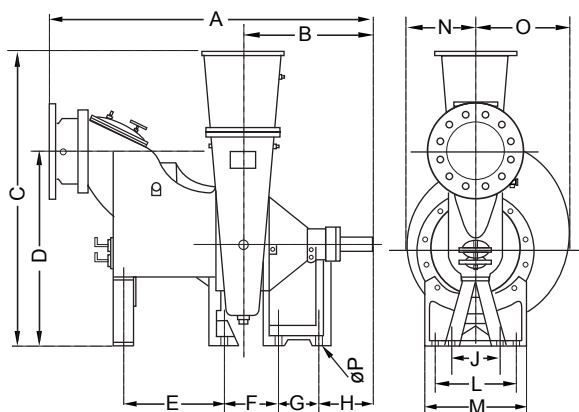
IMPELLER SHAFT



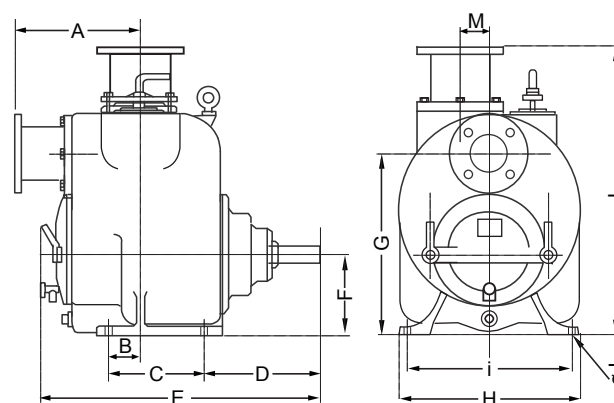
Models EJT250-375



Models EJT300-457



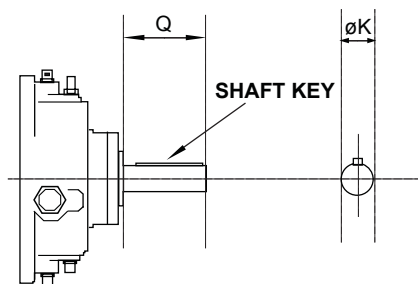
Models EJT50-160, EJT80-223, EJT100-248, EJT150-315 and EJT200-375



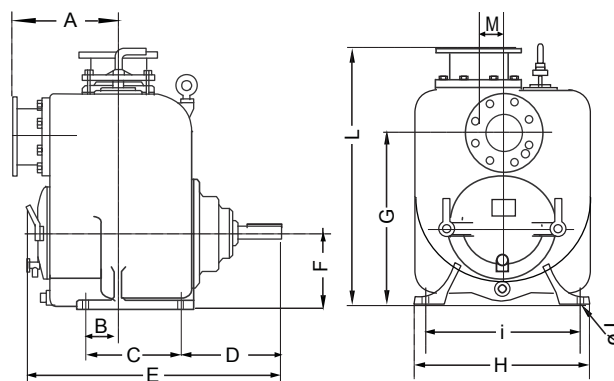
Pump Model	Port Size		Pump Dimension								Foot Dimension							Shaft End		Shipping Weight (kg)
	mm	in	A	E	F	G	L	M	N	O	B	C	D	H	I	J	P	K	Q	
EJT 50-160	50	2	235	547	152	318	523	70	--	--	54	163.2	275.0	308.3	281.0	14.0	--	38.1	101.6	156
EJT 80-223	80	3	294	668	191	432	687	70	--	--	76.2	228.6	284.2	431.8	393.7	17.5	--	38.1	101.6	270
EJT 100-248	100	4	318	768	222	495	743	70	--	--	77.8	280.0	293.7	501.7	457.2	17.5	--	38.1	127.0	375
EJT 150-315	150	6	406	802	257	568	897	70	--	--	77.8	279.4	293.7	577.9	527.0	17.5	--	38.1	127.0	487
EJT 200-375	200	8	413	1023	330	724	1068	--	--	--	101.6	304.8	407.1	704.9	635.0	22.4	--	44.5	169.9	905
EJT 250-375	250	10	1237	102	204	322	1221	786	635	705	712.0	523.3	636.5	381.0	355.6	1041.4	22.4	44.5	122.2	943
EJT 300-457	300	12	1622	508	270	203	406	508	346	467	650.0	1474.7	917.5	272.5	508.0	242.8	28.7	69.9	167.4	1100

Installing Dimensions

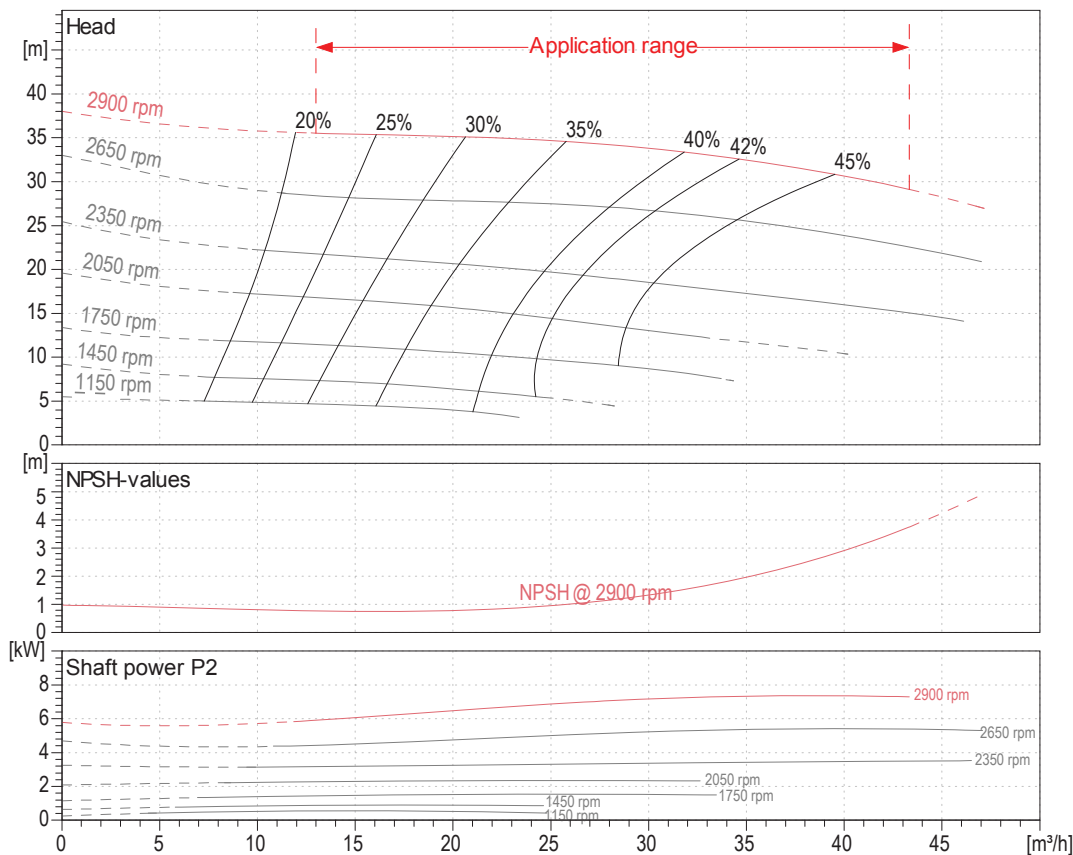
IMPELLER SHAFT



Models EJU80-280



Pump Model	Port Size		Pump Dimension							Foot Dimension					Shaft End		Shipping Weight (kg)
	mm	in	A	E	F	G	L	M	B	C	D	H	I	J	K	Q	
EJU 80-280	80	3	292	667	191	432	687	70	76.2	228.6	282.9	431.8	394.0	17.5	38.1	103.1	301
EJU 100-280	100	4	318	752	222	508	749	70	96.8	279.4	297.5	508.0	457.2	17.5	38.1	126.2	357
EJU 150-318	150	6	406	845	257	568	897	70	77.7	279.4	330.7	584.2	527.2	17.5	44.5	114.3	574

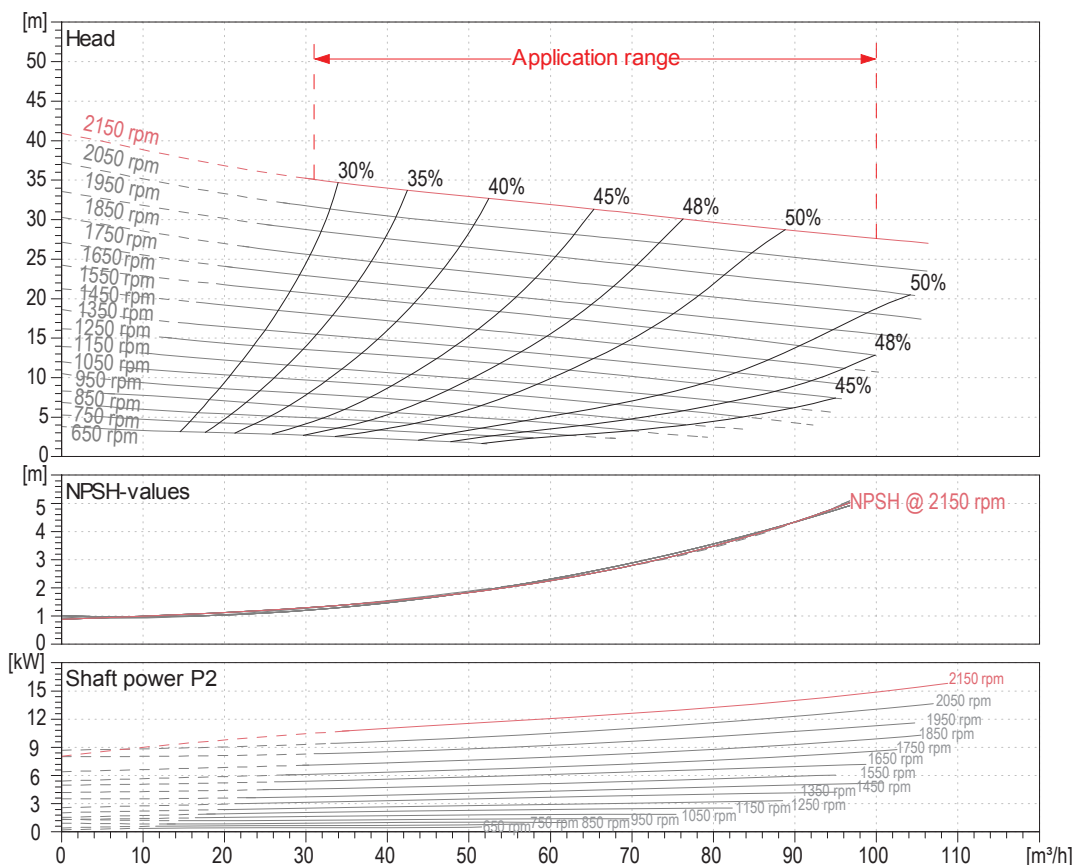


EJT 50-160 Performance Curve

Impeller Dia. 158.75 mm (6 1/4")

Max Solids 44.45 mm (1 3/4")

R.P.M. 1150 to 2900 pm



EJT 80-223 Performance Curve

Impeller Dia. 222.25 mm (8 3/4")

Max Solids 63.5 mm (2 1/2")

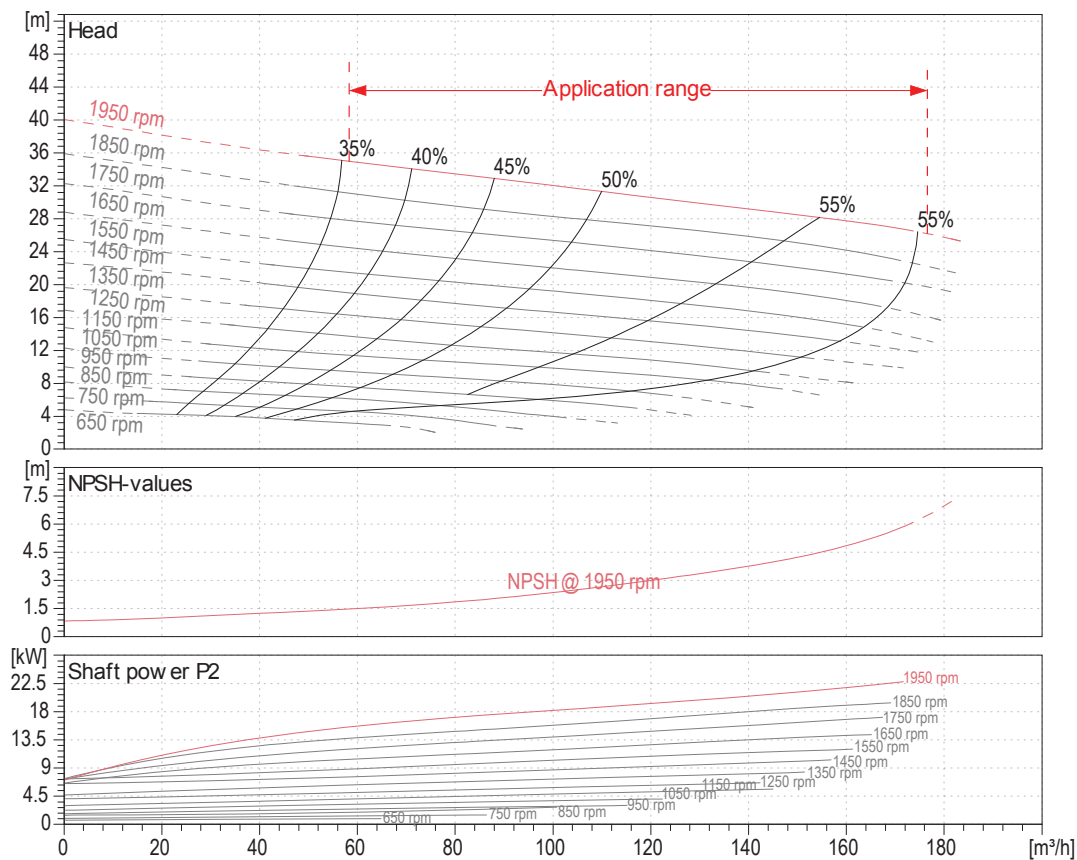
R.P.M. 650 to 2150 rpm

EJT 100-248 Performance Curve

Impeller Dia. 247.65 mm (9 ¾")

Max Solids 76.2 mm (3")

R.P.M. 650 to 1950 rpm

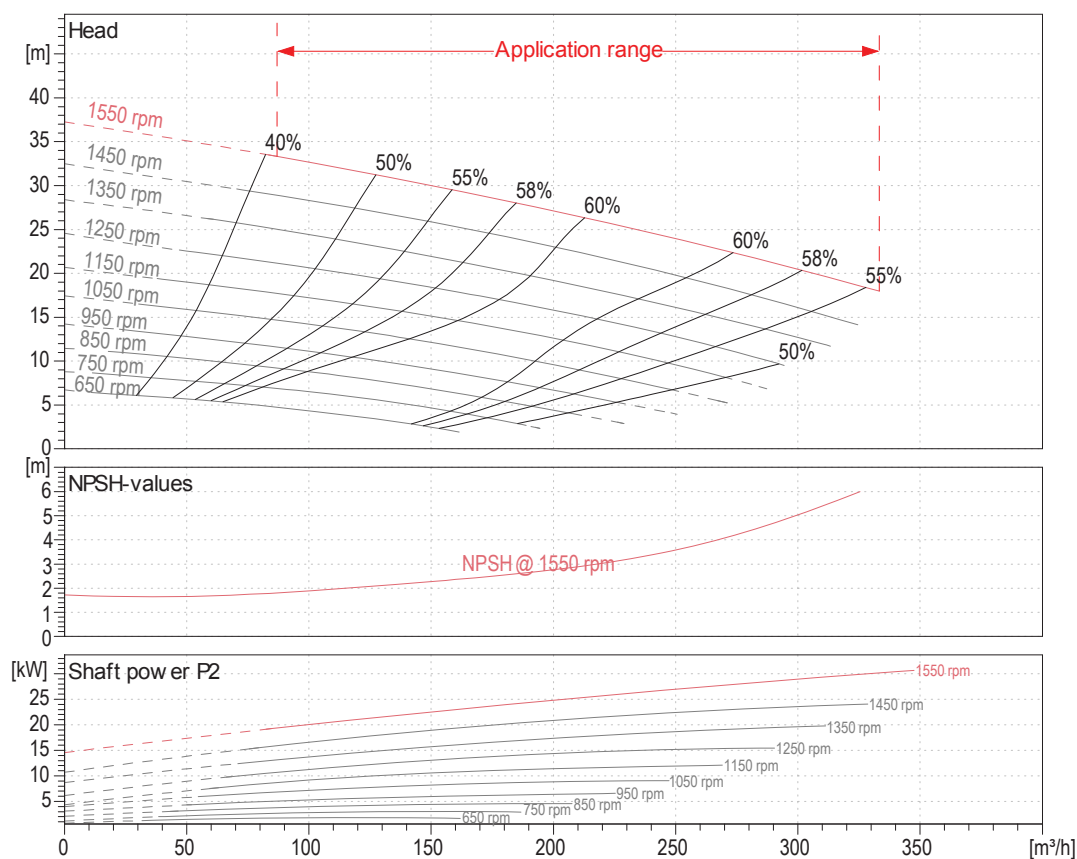


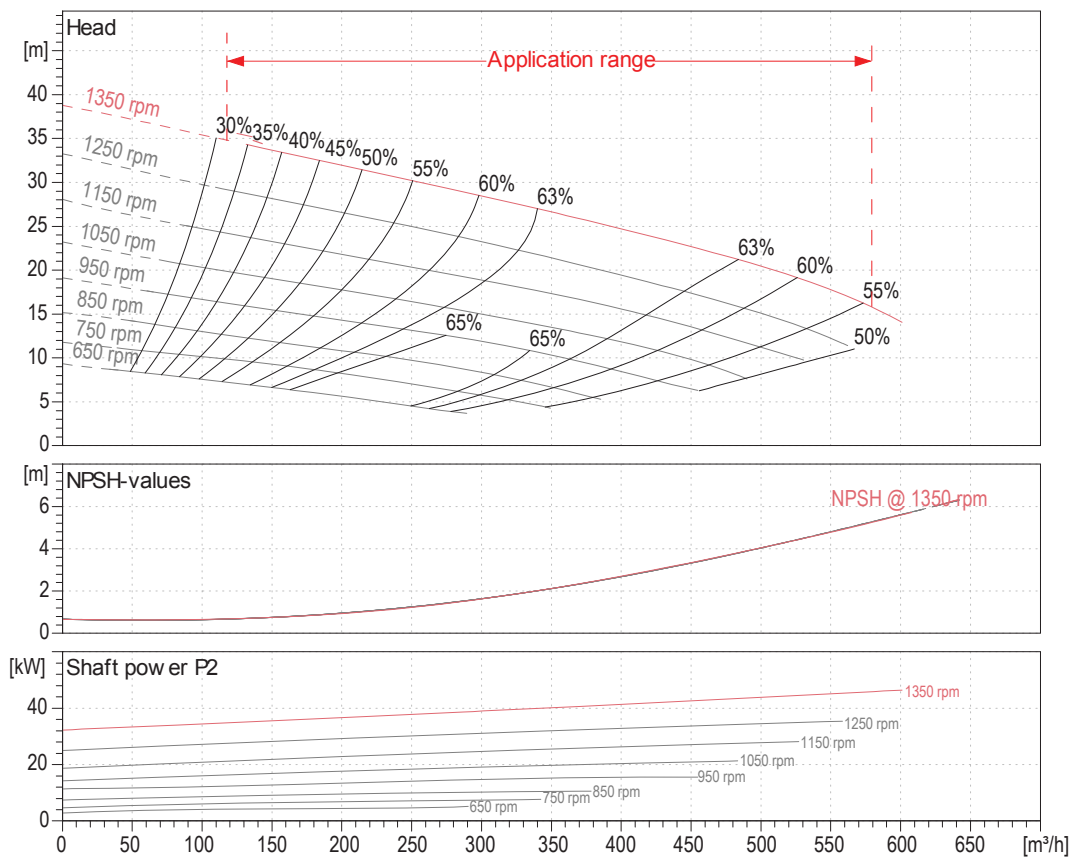
EJT 150-315 Performance Curve

Impeller Dia. 314.32 mm (12 3/8")

Max Solids 76.2 mm (3")

R.P.M. 650 to 1550 rpm



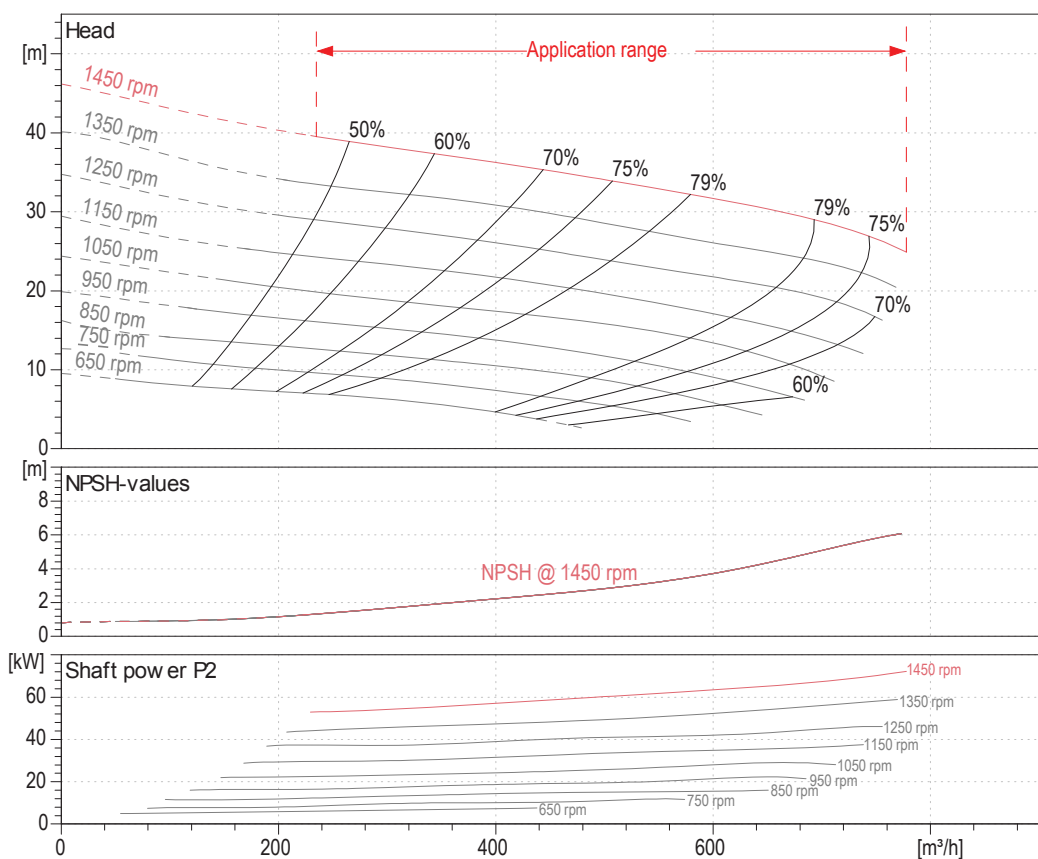


EJT 200-375 Performance Curve

Impeller Dia. 374.65 mm (14.3/4")

Max Solids 76.2 mm (3")

R.P.M. 650 to 1350 rpm



EJT 250-375 Performance Curve

Impeller Dia. 374.65 mm (14.3/4")

Max Solids 76.2 mm (3")

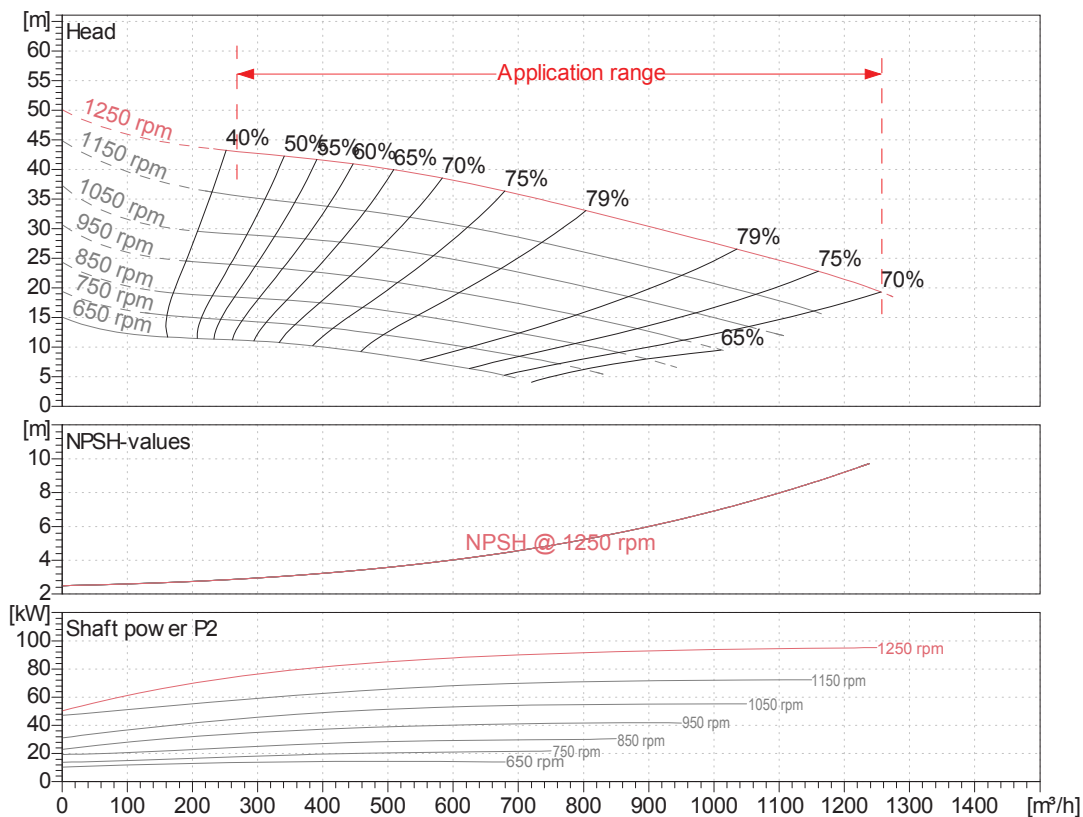
R.P.M. 650 to 1450 rpm

EJT 300-457 Performance Curve

Impeller Dia. 457.2 mm (18")

Max Solids 76.2 mm (3")

R.P.M. 650 to 1250 rpm

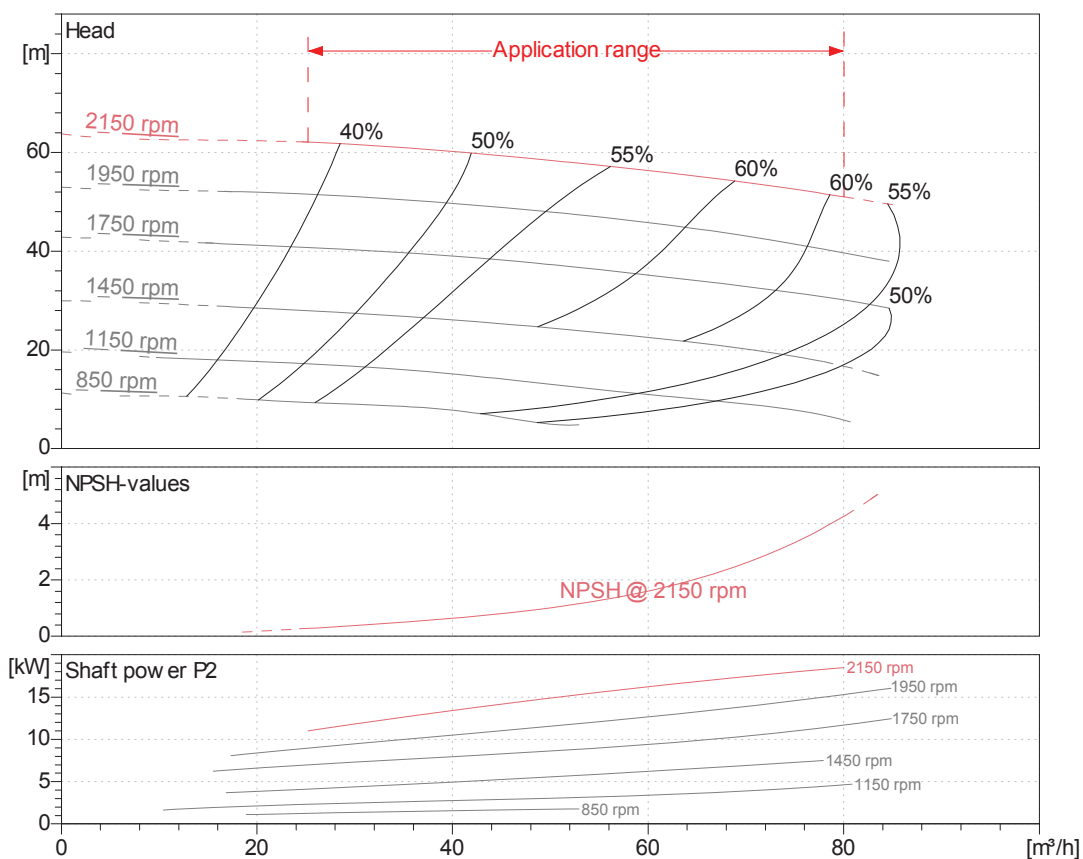


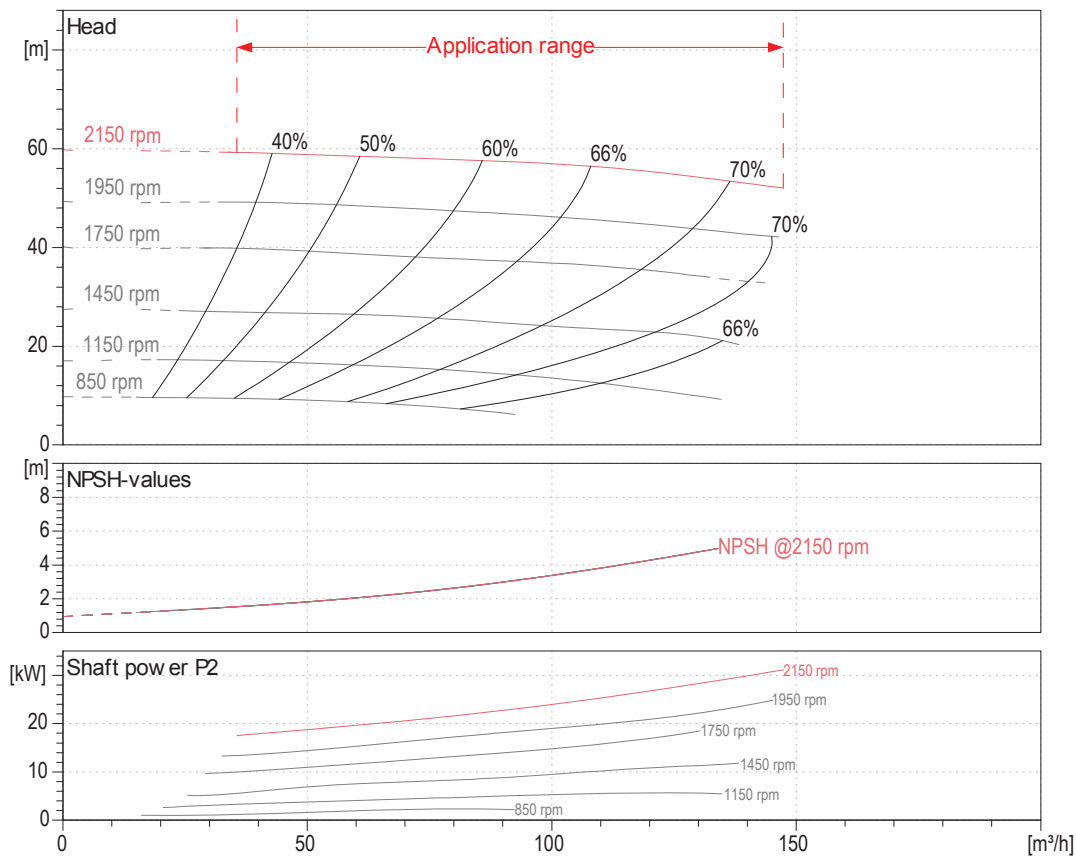
EJU 80-280 Performance Curve

Impeller Dia. 279.4 mm (11")

Max Solids 20.63 mm (13/16")

R.P.M. 850 to 2150 rpm



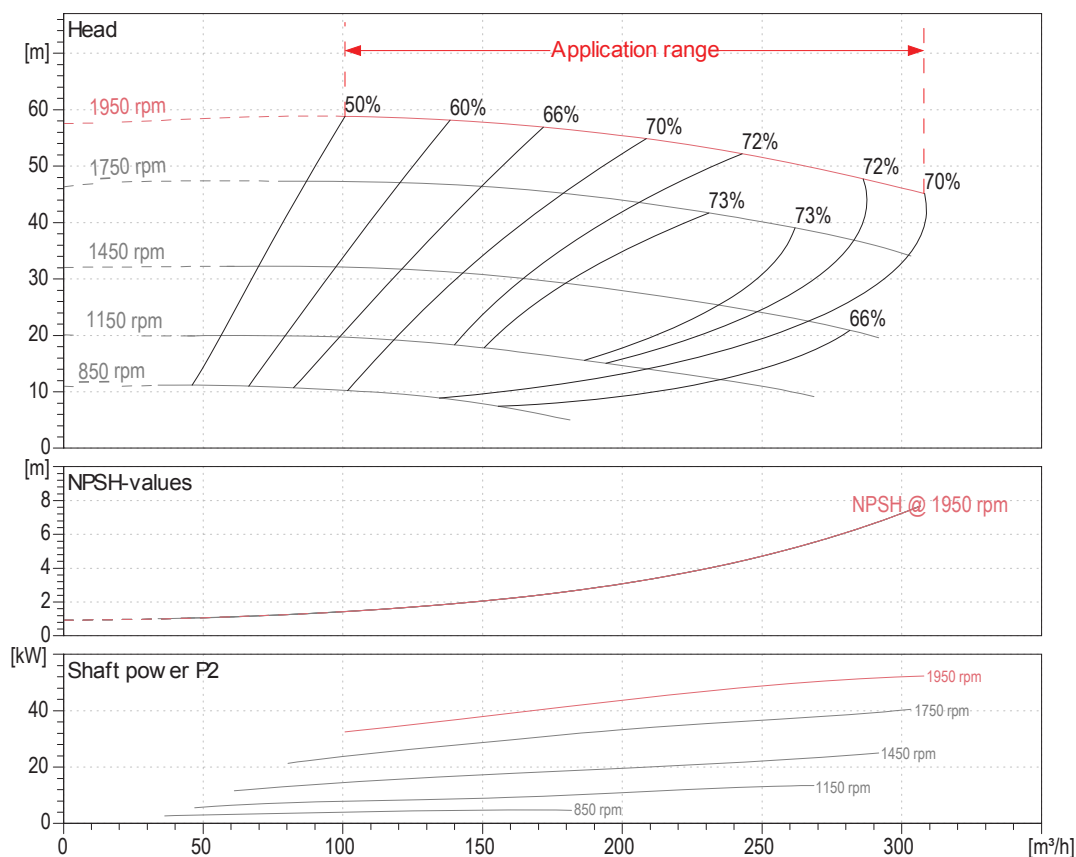


EJU 100-280 Performance Curve

Impeller Dia. 279.4 mm (11")

Max Solids 28.57 mm (1.1/8")

R.P.M. 850 to 2150 rpm



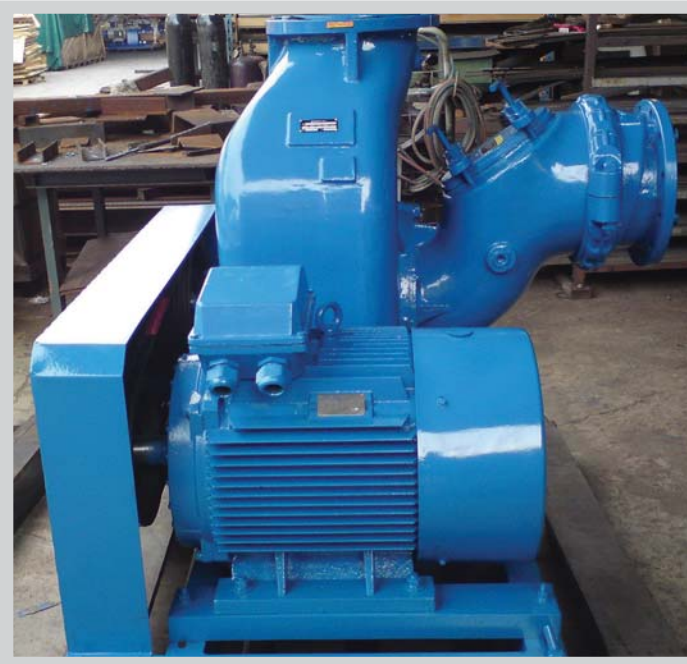
EJU 150-318 Performance Curve

Impeller Dia. 317.5 mm (12 1/2")

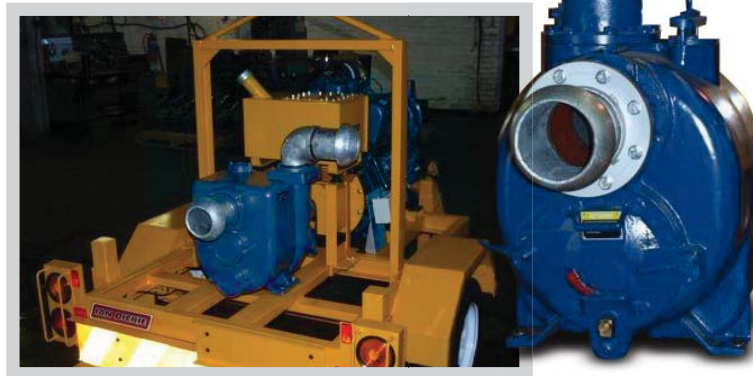
Max Solids 31.75 mm (1 1/4")

R.P.M. 850 to 1950 rpm

Project Applications



EUROFLO EJ Self Priming Pump with belt Pulley Driven



EUROFLO EJS self priming with Trolley and fuel tank

Your local distributor details:



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