

Flowrox progressive cavity pumps

Flowrox Progressive cavity (PC) pumps are ideal for challenging applications with high viscous, corrosive and other difficult or sensitive media.

PC pumps are divided into three series. E-series is ideal for industrial and paste pumping applications. EL-series PC pumps excel in demanding wastewater and municipal waste applications. D-series progressive cavity pumps are designed especially for chemical and flocculant dosing applications.

Operating principle of the PC pump is based on the fact that the pumped medium continuously shifts spaces (progressing cavities) between the rotor and the stator, enabling nearly pulsation free pumping.



Features

- Evenwall® stator
- 2/3 rotor geometry
- Low pulsation flow
- No shearing or mixing of fluids

Ideal applications:

- Paper coating and paste pumping
- Sludge transfer
- Adhesives, pigments
- Filter feed

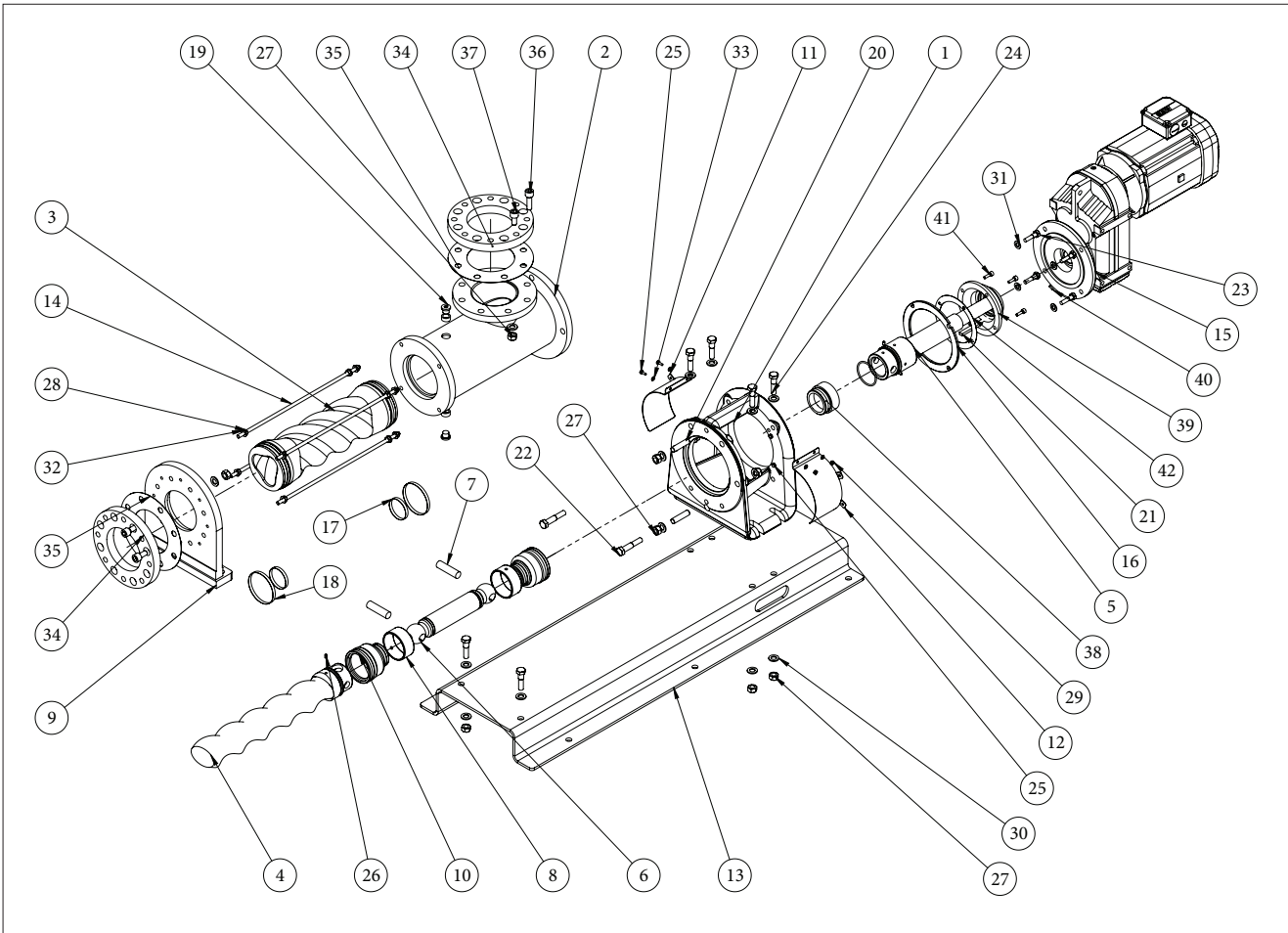
Benefits

- Over 30% higher flow rate compared to a conventional PC pump with same rpm
- Save energy up to 15% compared to a conventional model
- Long rotor/stator lifetime

Technical Data	E-series PC pump								EL-series PC pump			
	E2/10	E4/10	E10/10	E20/10	E35/10	E70/10	E150/10	E250/10	EL50/6	EL100/6	EL200/6	EL330/6
Weight (shipping weight)	110	135	180	270	350	630	1360	2300	309	1191	2469	4189
Maximum flow *	1,7	3,4	6,8	14,1	35,6	69,6	141,1	227,6	1100,7	440,3	880,6	1320,9
Maximum pressure *	10	10	10	10	10	10	10	10	87	87	87	87
Maximum viscosity	30000 cp											
Maximum fluid temperature	70° C / 130° F											
Motor power	1,5	3	3	7,5	11	30	75	90	2	20	49,6	100,6

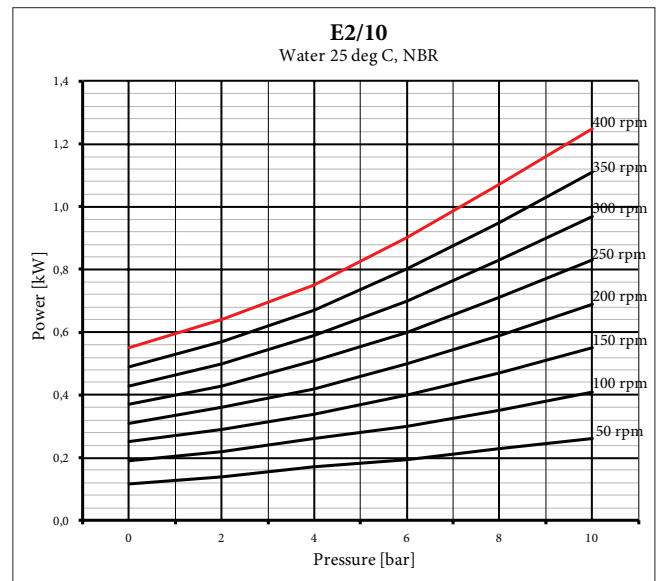
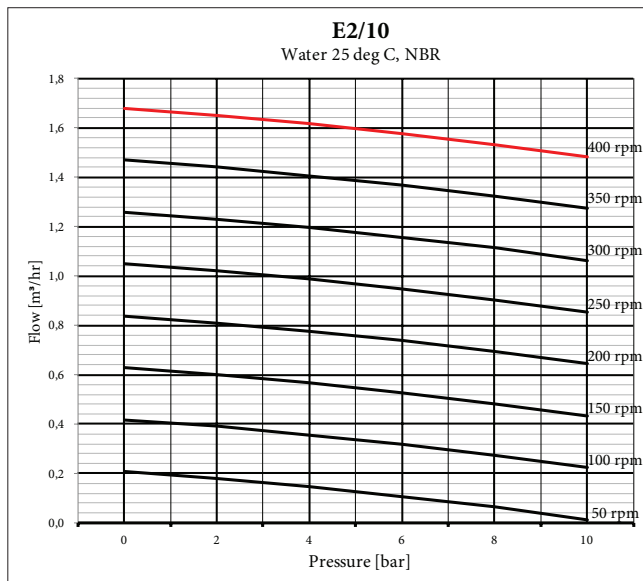
*See page 4 for tube specific maximum flow rates and pressures

Exploded view of PC-pump

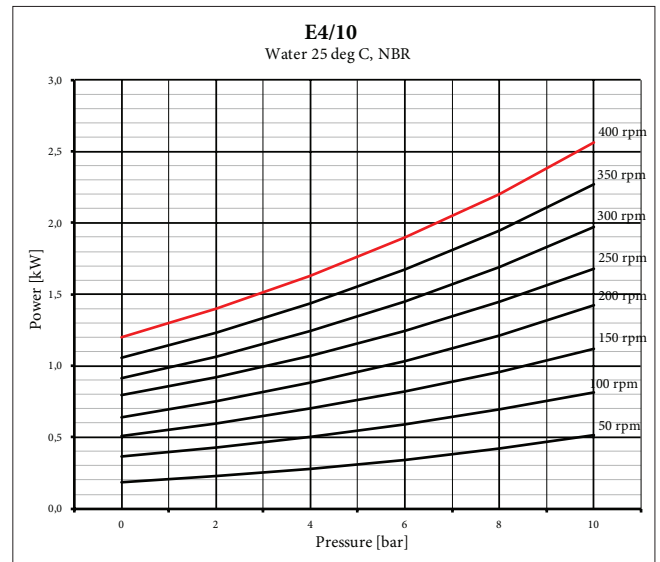
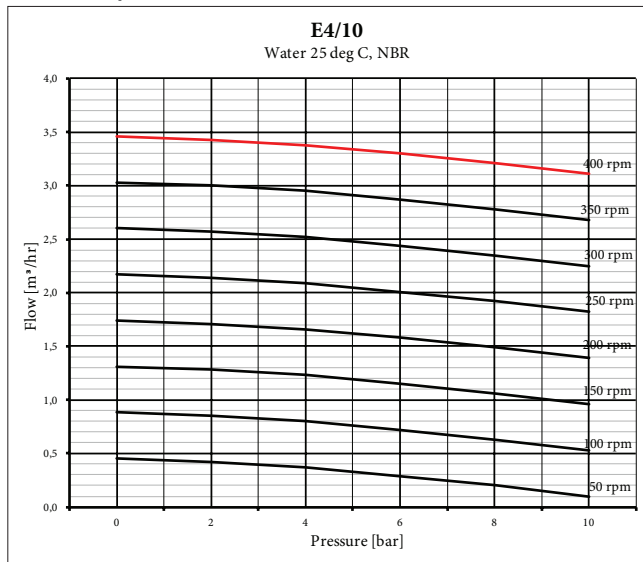


ITEM NO.	SPDM_ITEM_DESC2	QTY.	ITEM NO.	SPDM_ITEM_DESC2	QTY.
1	FRAME	1	22	HEX SCREW	2
2	SUCTION PIPE	1	23	HEX SCREW	4
3	STATOR	1	24	HEX SCREW	6
4	ROTOR	1	25	HEX SCREW	6
5	DRIVE SHAFT	1	26	HEX SOCKET HEAD SCREW	6
6	ARTICULATED SHAFT	1	27	HEX NUT	19
7	JOINT PIN	2	28	HX NUT	12
8	JOINT PIN	2	29	HEX NUT	2
9	SUPPORT FLANGE	1	30	WASHER	25
10	SHAFT RUBBER	2	31	WASHER	4
11	FRAME COVER PLATE	1	32	WASHER	12
12	FRAME COVER PLATE	1	33	WASHER	8
13	PLATFORM	1	34	PC ADAPTER FLANGE	2
14	THREADED BAR	4	35	SEAL	2
15	GEAR MOTOR	1	36	HEX SOCKET SCREW	9
16	GUIDE RING	1	37	HEX SOCKET SCREW	9
17	PREFORMED CLAMP	2	38	SEAL	1
18	PREFORMED CLAMP	2	39	MAIN SEAL	1
19	PLUG HEX SOCKET HEAD	2	40	KEEN PIN	1
20	THREADED STUD	2	41	HEX SOCKET SCREW	4
21	KEY BAR	1	42	SEAL	1

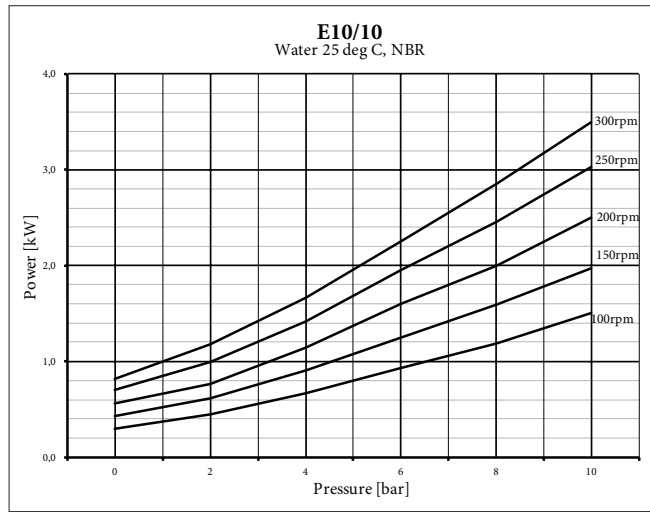
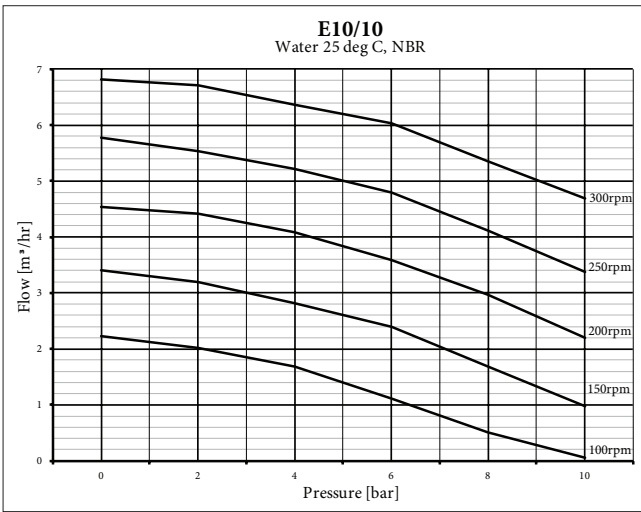
PC Pump E2/10



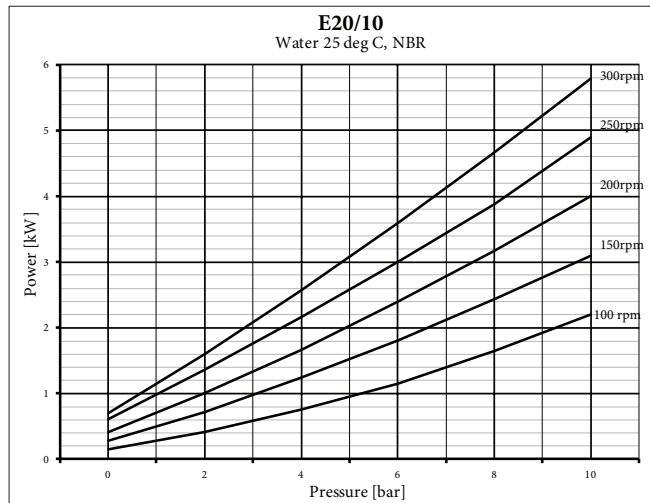
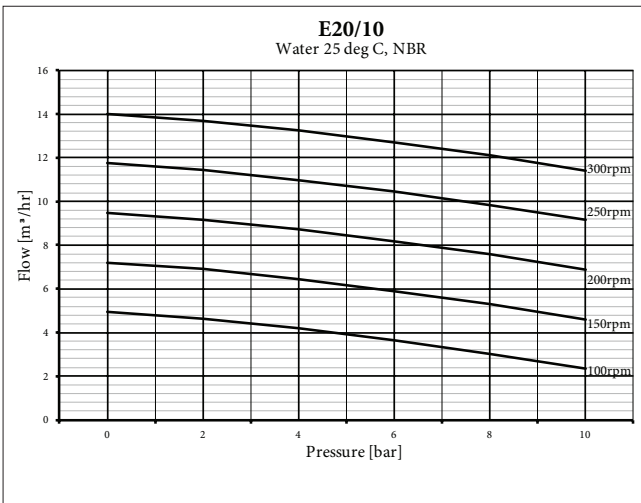
PC Pump E4/10



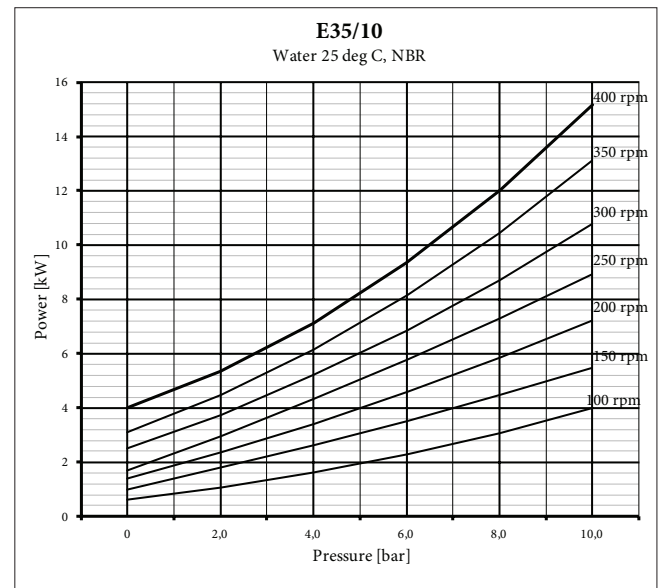
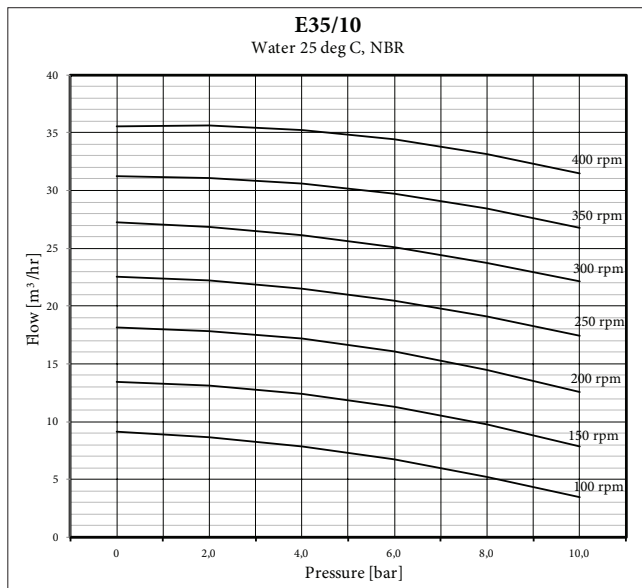
PC Pump E10/10



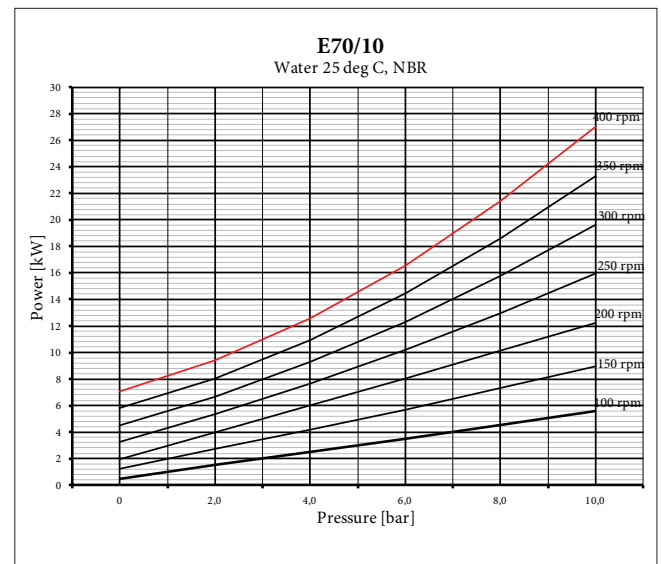
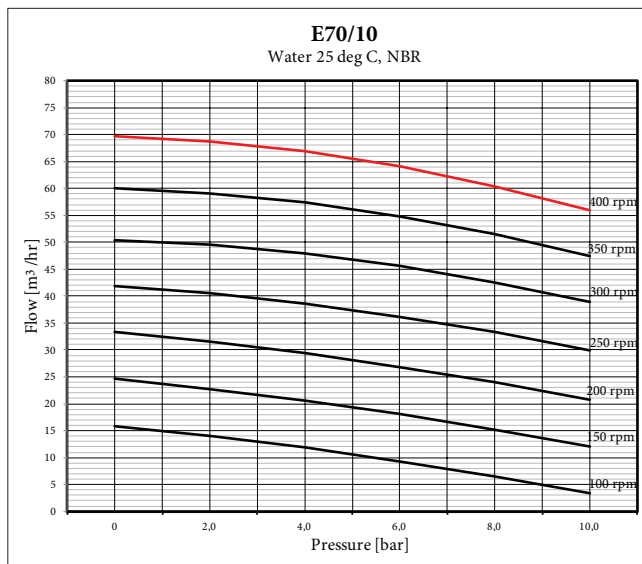
PC Pump E20/10



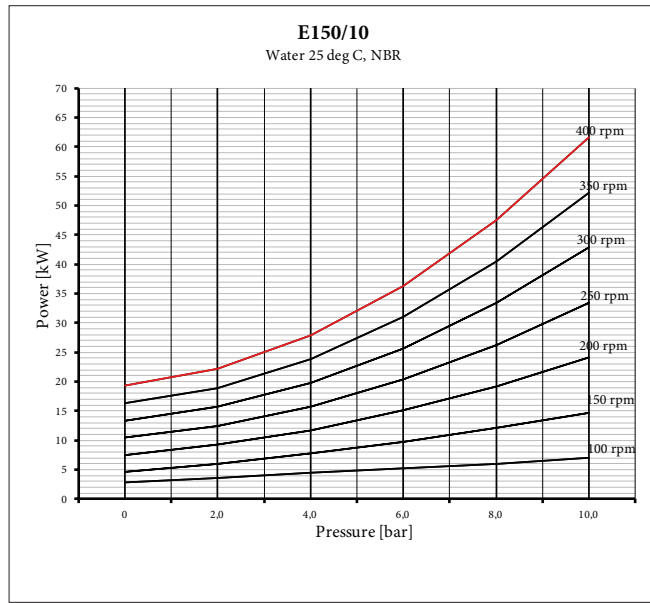
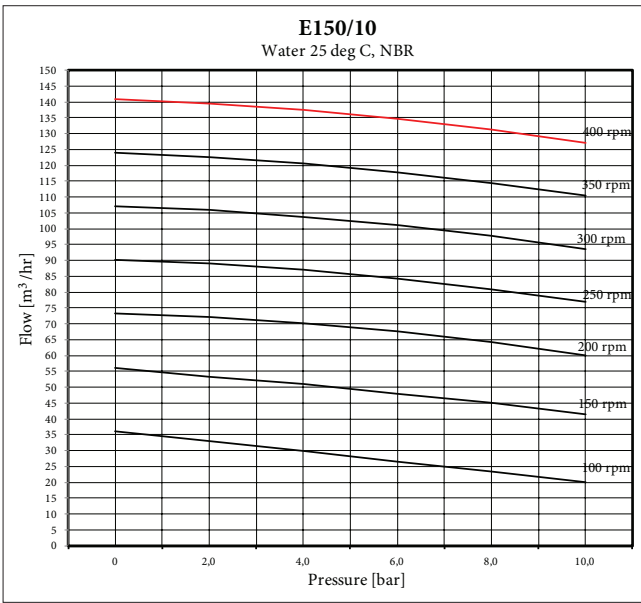
PC Pump E35/10



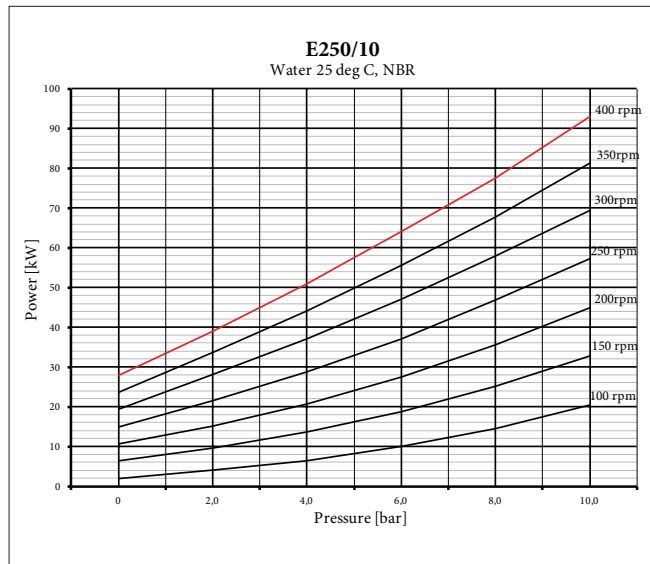
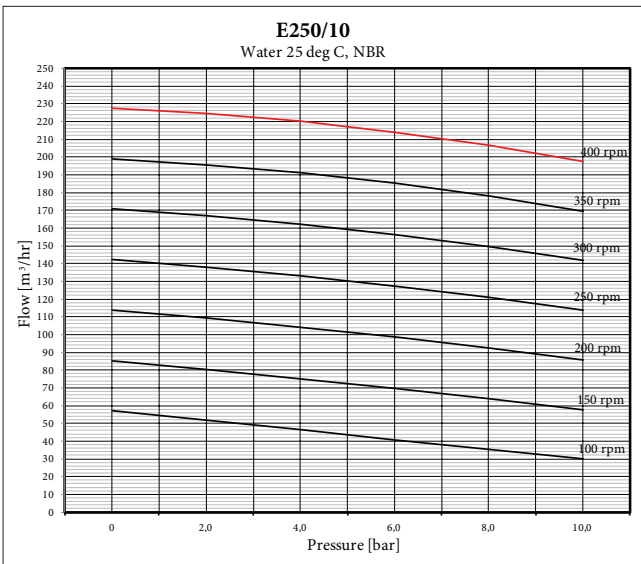
PC Pump E70/10



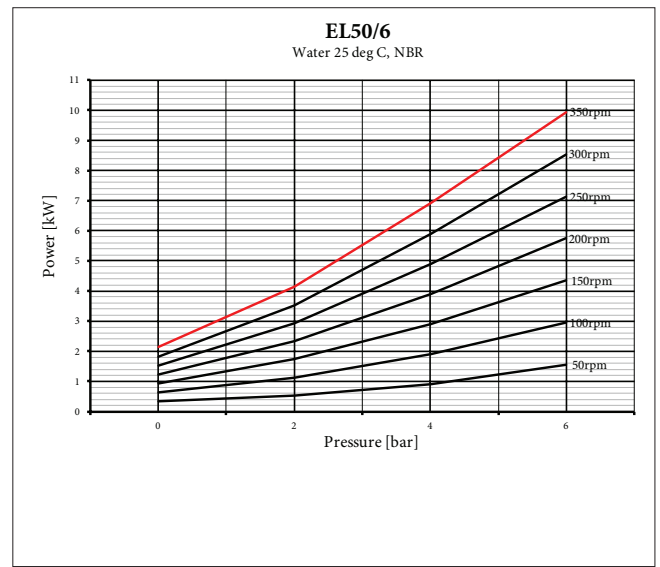
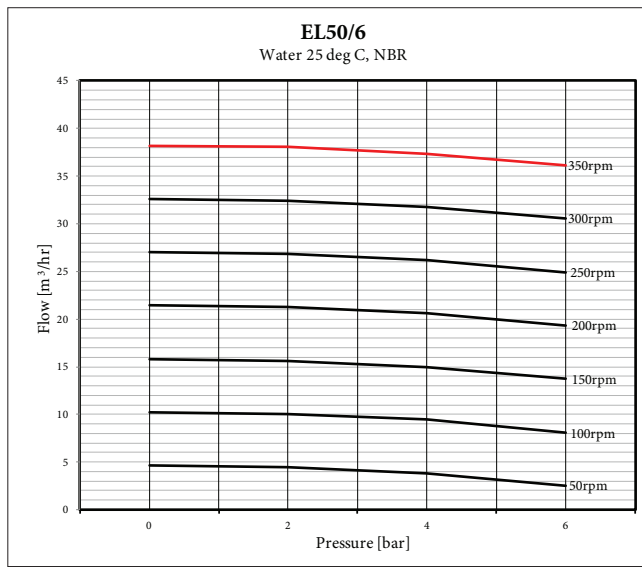
PC Pump E150/10



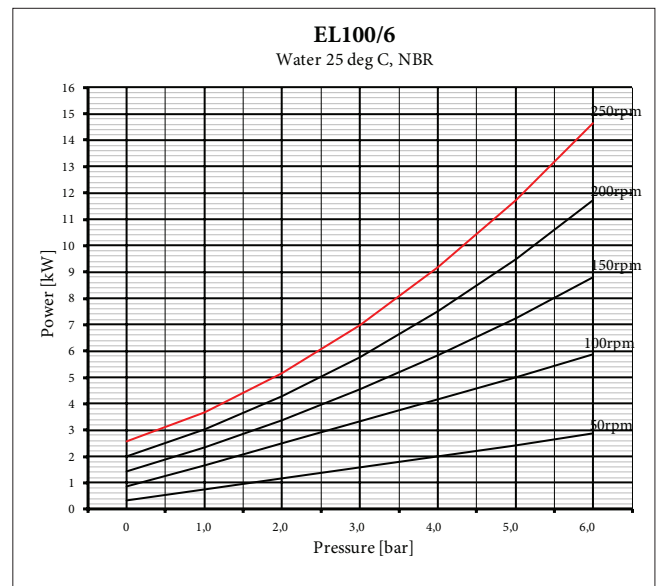
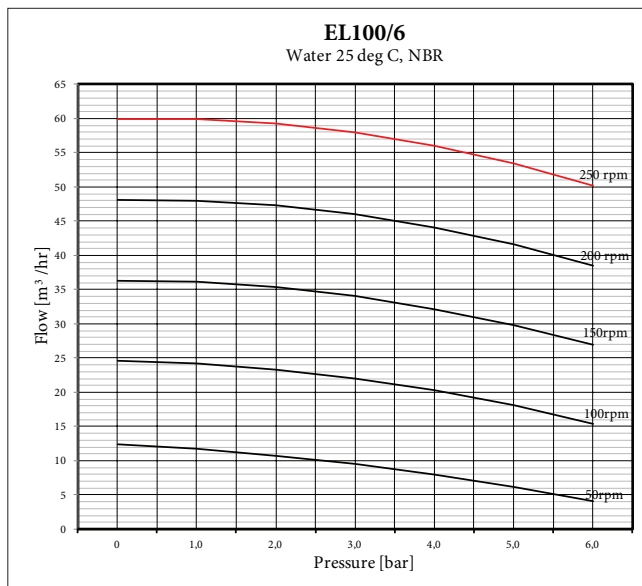
PC Pump E250/10



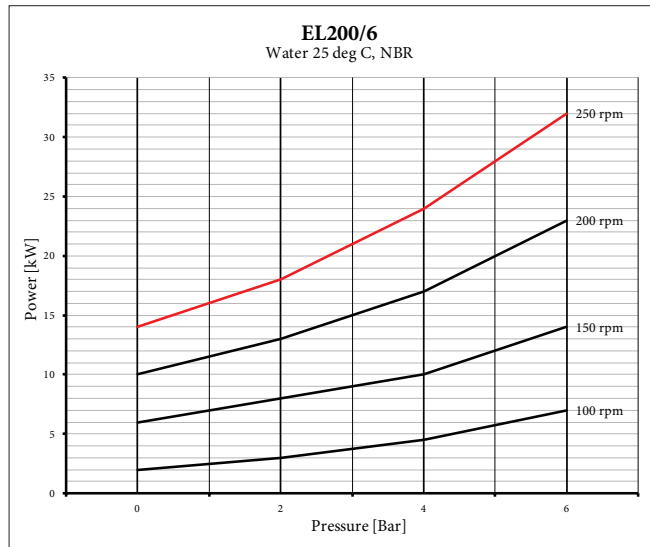
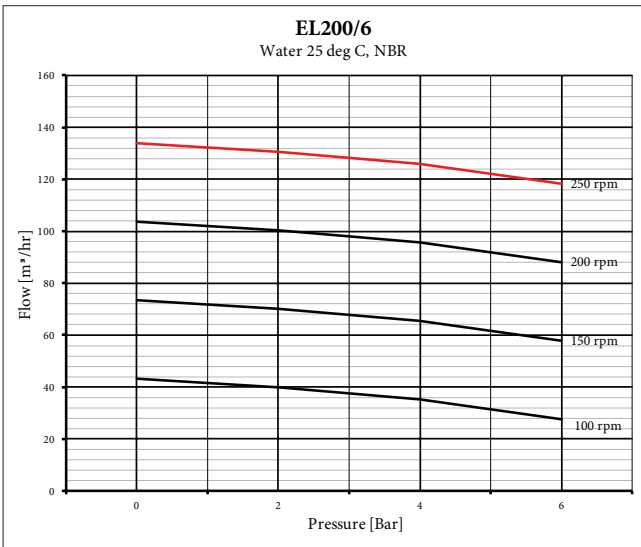
PC Pump EL50/6



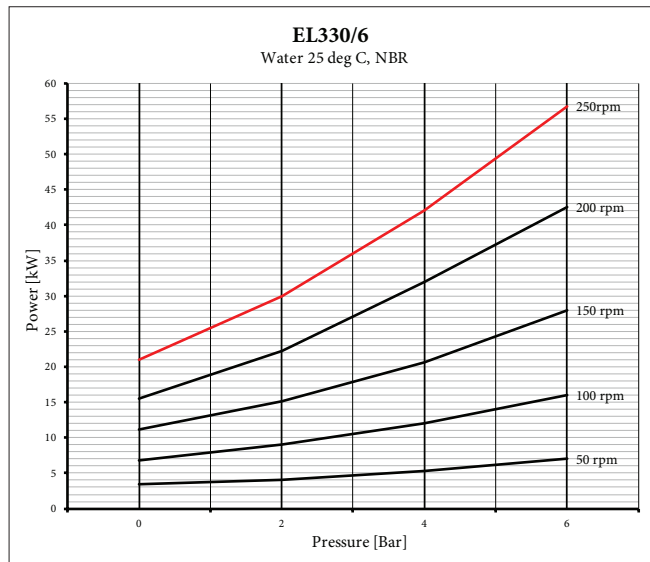
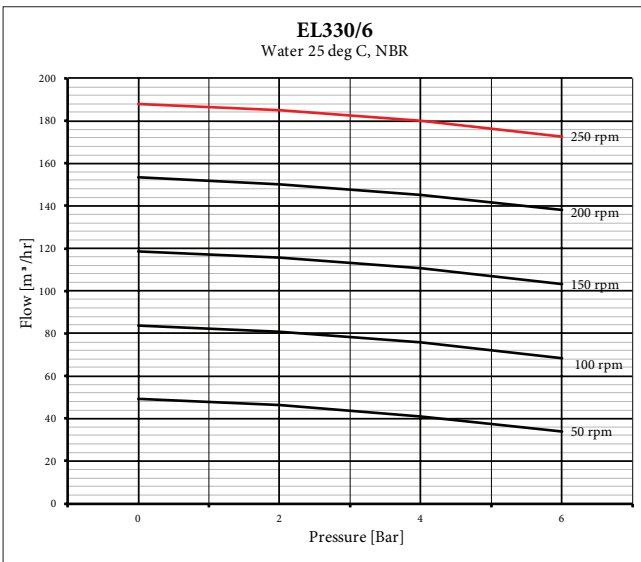
PC Pump EL100/6



PC Pump EL200/6



PC Pump EL330/6



Technical specifications

Series:

E-Series: E2, E4, E10, E35, E70,
E150, E250
EL-Series: EL50, EL100, EL200,
EL330

Drive unit

- Gear motor
- Gear unit
- Bare shaft

Connections:

DIN PN10, ANSI 150

Auxiliaries:

Platform
Pressure transmitter
Inspection hatch

Temperature range:

Maximum fluid temperature: 70°C / 158°F
Minimum & maximum ambient
operating temperature: 0°C to 46°C /
32 °F to 115 °F

Construction materials:

Wetted components:

Stator: NBR

Rotor: Carbon steel,
Stainless steel

Rotor coating: Black-nitration
Hard chromium,
Tungsten carbide

Suction pipe: Carbon steel
Stainless steel

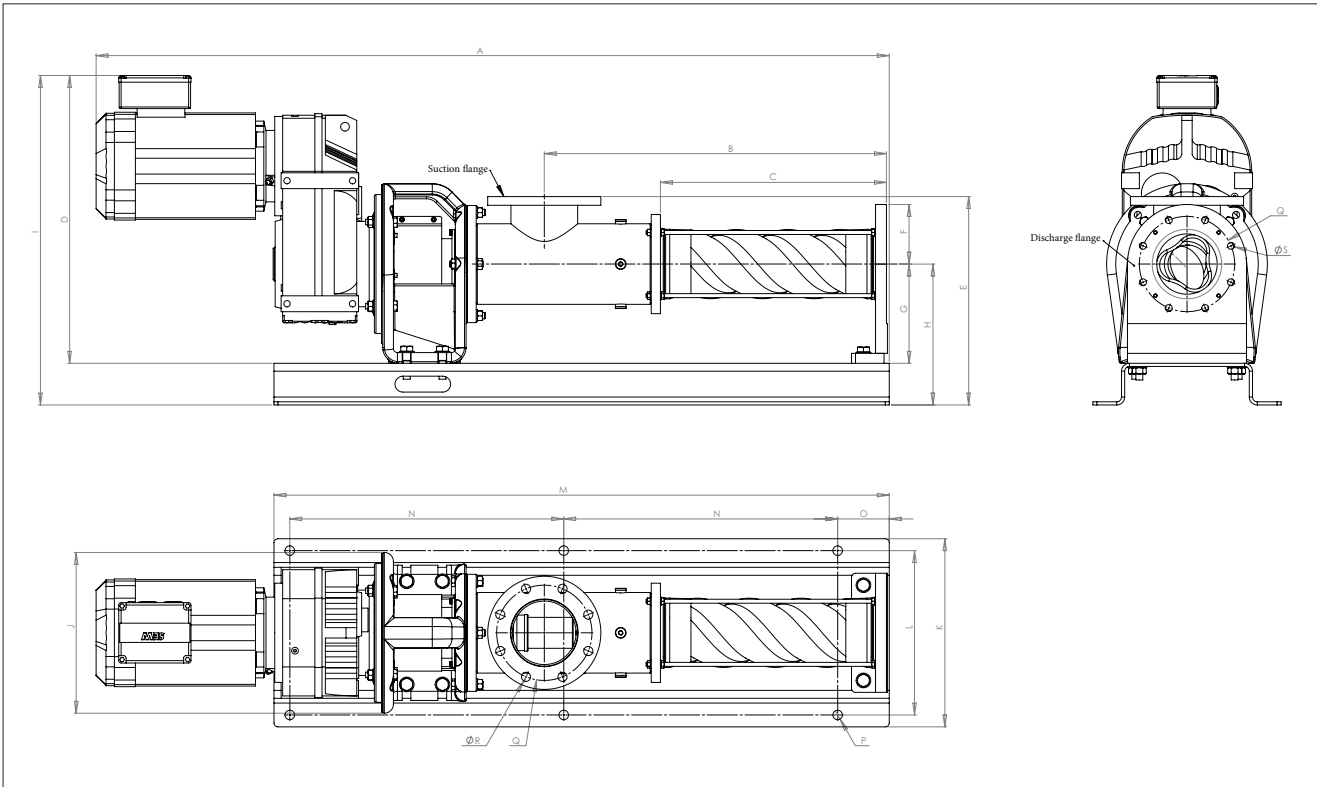
Seal: Gland packing,
1-stage mechanical seal
2-stage mechanical seal

Non-wetted components:

Frame: Cast iron

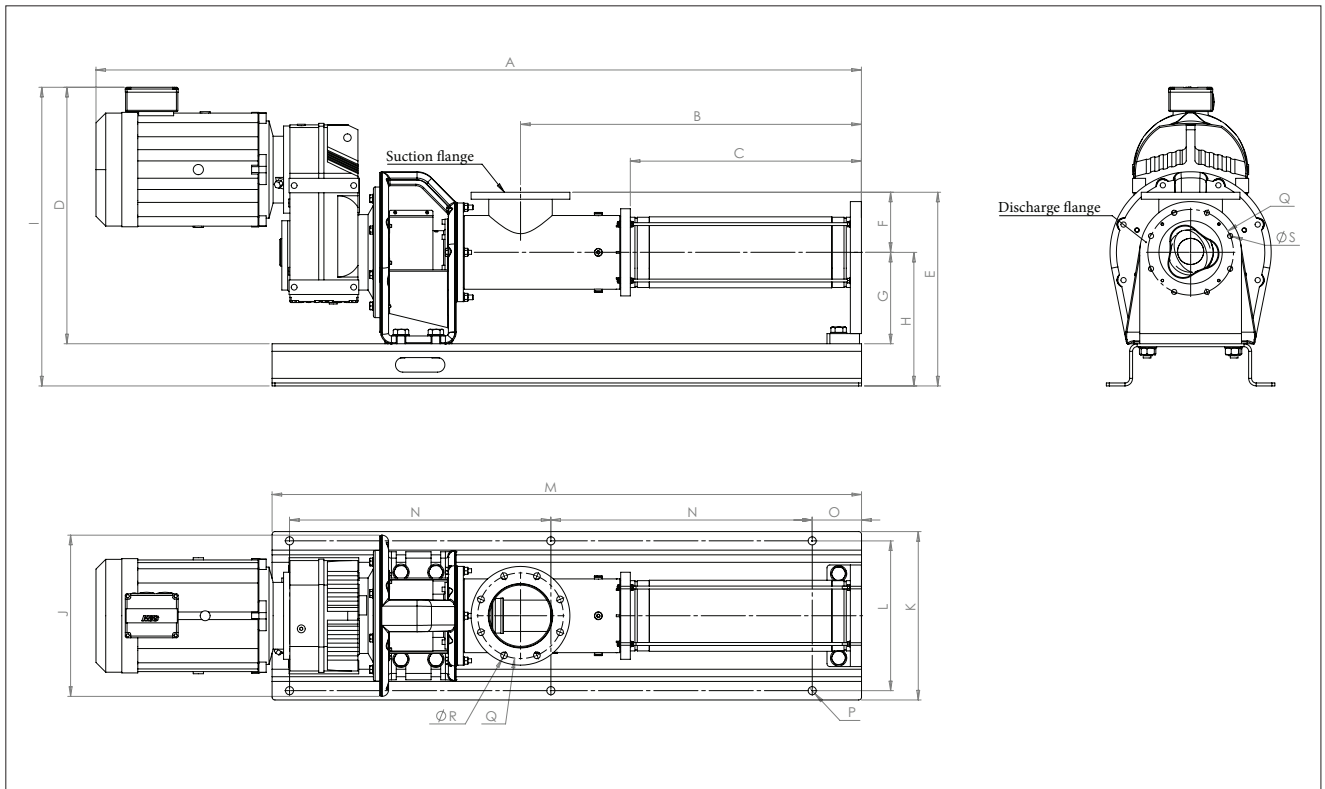
Platform: Carbon steel

Dimensions PC-E pumps



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Suction flange	Discharge flange
E2/10	1260	433	229	423	368	128	125	240	508	290	380	344	940	765	118	D18 x 4	125	D18 x 4	M16 x 4	DN50	DN50
E4/10	1273	433	381	444	368	128	125	240	509	290	380	344	940	765	118	D18 x 4	145	D18 x 4	M16 x 4	DN65	DN65
E10/10	1358	519	315	440	380	140	125	240	525	290	390	354	1060	440	130	D18 x 6	160	D18 x 8	M16 x 8	DN80	DN80
E20/10	1723	698	395	566	420	160	155	260	566	340	474	414	1300	560	135	D18 x 6	180	D18 x 8	M16 x 8	DN100	DN100
E35/10	1886	774	471	629	465	160	200	305	734	340	474	414	1400	645/530	185	D18 x 6	210	D18 x 8	M16 x 8	DN125	DN125
E70/10	2254	862	570	848	525	170	250	355	924	405	474	414	1550	690	130	D24 x 6	240	D23 x 8	M20 x 8	DN150	DN150
E150/10	2683	994	616	1095	667	207	315	460	1240	555	580	516	1850	810	170	D28 x 6	295	D23 x 8	M20 x 8	DN200	DN200
E250/10	2902	1128	675	1170	770	230	390	525	1320	665	646	588	2170	960	190	D28 x 6	350	D23 x 12	M20 x 12	DN250	DN250

Dimensions PC-EL pumps



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Suction flange	Discharge flange
EL50/6	2005	893	590	629	465	153	208	305	734	300	474	414	1519	660	154	18	210	D18 x 8	M16 x 8	DN125	DN125
EL100/6	2108	972	680	755	525	170	250	355	830	300	474	414	1660	745	123	24	240	D23 x 8	M20 x 8	DN150	DN150
EL200/6	2636	1174	796	883	667	207	315	460	1029	350	580	516	2030	900	170	28	295	D23 x 8	M20 x 8	DN200	DN200
EL330/6	3202	1428	975	1170	770	230	390	540	1320	400	680	605	2470	1110	190	28	350	D23 x 12	M20 x 12	DN250	DN250

Valmet Flow Control Oy

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www.valmet.com/flowcontrol

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