



HP-2400 | HP-1250 | HP-8500

PX[®] Booster Pumps

Making Desalination Affordable[®]



HP-2400 | HP-1250 | HP-8500 Series

PX[®] Booster Pumps



The ERI[®] PX Booster Pump is designed to be used in SWRO systems in conjunction with ERI's PX Pressure Exchanger[®] (PX[®]) energy recovery devices. The PX Booster Pump is a horizontal multistage centrifugal pump driven by a Totally Enclosed Fan Cooled (TEFC) motor. The PX Booster Pump boosts the pressure in the high pressure portion of a SWRO system to make up for the small pressure losses that occur through the SWRO membranes, the PX units and the associated piping. The PX Booster Pump is specially designed to handle high operating pressures and corrosive seawater environments while consuming minimal energy to provide a small boost to the high-pressure flow.

It achieves superior performance through superior design. The mechanical seal is made with high-performance carbide sealing faces specifically designed for continuous reliable service at process pressures up to 1200 psi/83 bar. The motors are equipped with extra heavy-duty thrust bearings for long service lives. All wetted metal components in PX Booster Pumps are AL6XN[®] or equivalent stainless steel with Pitting Resistance Equivalent Numbers (PREN) greater than 45. Impellers and diffusers are corrosion-proof fiber reinforced polymer. The ERI PX Booster Pump is the only pump of its type in the market made with AL6XN and other non-corroding components.

PX Booster Pump Product Line

Model	Capacity	
HP-2403 Series	52 – 68 m ³ /hr	230 – 300 gpm
HP-2402 Series	30– 52 m ³ /hr	130 – 230 gpm
HP-1254 Series	36 – 45 m ³ /hr	160 – 200 gpm
HP-1253 Series	23 – 36 m ³ /hr	100 – 160 gpm
HP-8504 Series	16 – 23 m ³ /hr	70 – 100 gpm
HP-8503 Series	11 – 16 m ³ /hr	50 – 70 gpm

PX Booster Pumps are for SWRO plants with permeate production rates ranging from approximately 135 to 1,350 m³/day (25 to 250 gpm).

Each PX Booster Pump series has two models to cover the pressure range and flow requirements of that series. Booster pumps for larger plants are made by a number of other pump manufacturers.

BENEFITS

- Low Energy Consumption
- Superior Construction and Design
- Reliability of Performance in High Operating Pressures

STANDARD FEATURES

- 3-inch flexible coupling connections for easy installation
- 50/60 Hz TEFC motor, ready for VFD control
- Simple interface for easy mechanical seal maintenance

MATERIALS

The PX Booster Pumps is intended for continuous duty in the most difficult and corrosive seawater conditions. It incorporates non-corroding AL-6XN[®] or equivalent metals and non-corroding Noryl[®] impellers for high reliability.

AL-6XN[®] is a registered trademark of Allegheny Ludlum Corp.





ERI PX BOOSTER PUMP PERFORMANCE CURVES

PX-1253

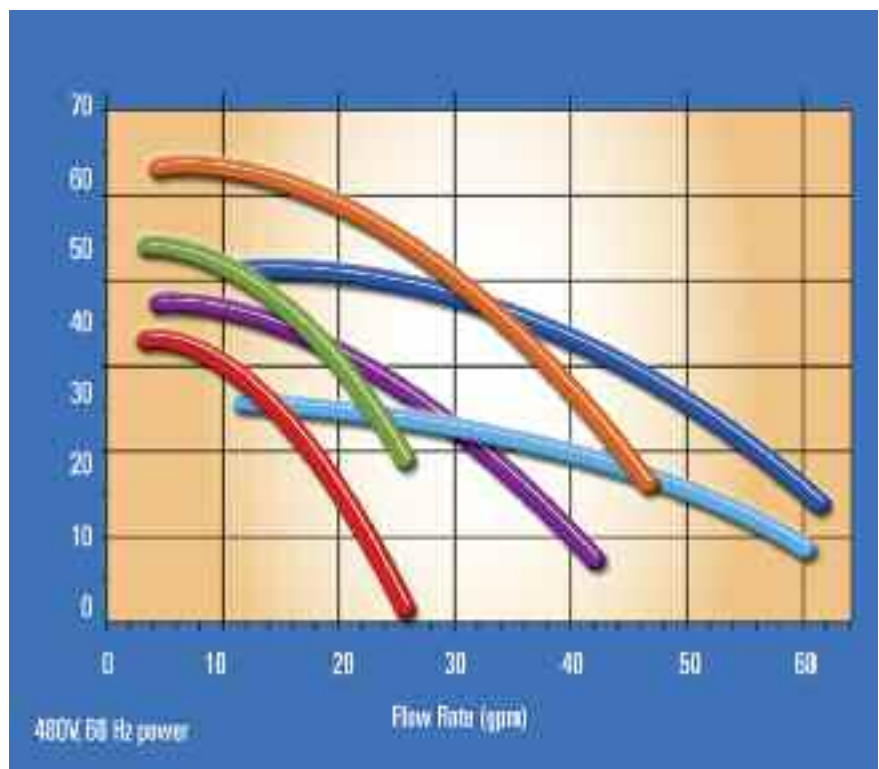
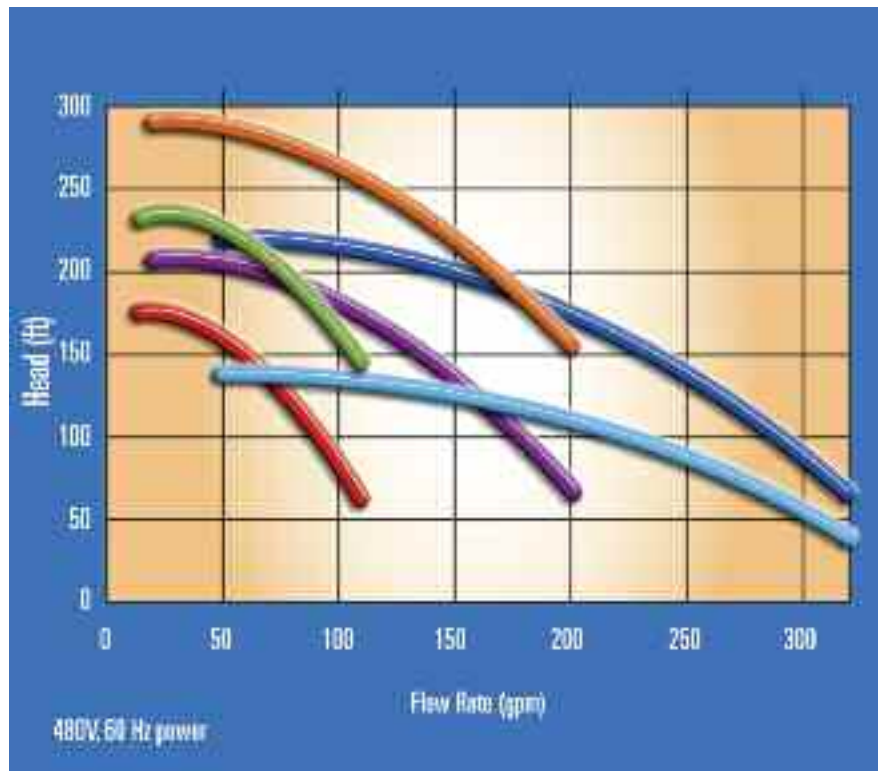
PX-1254

PX-2402

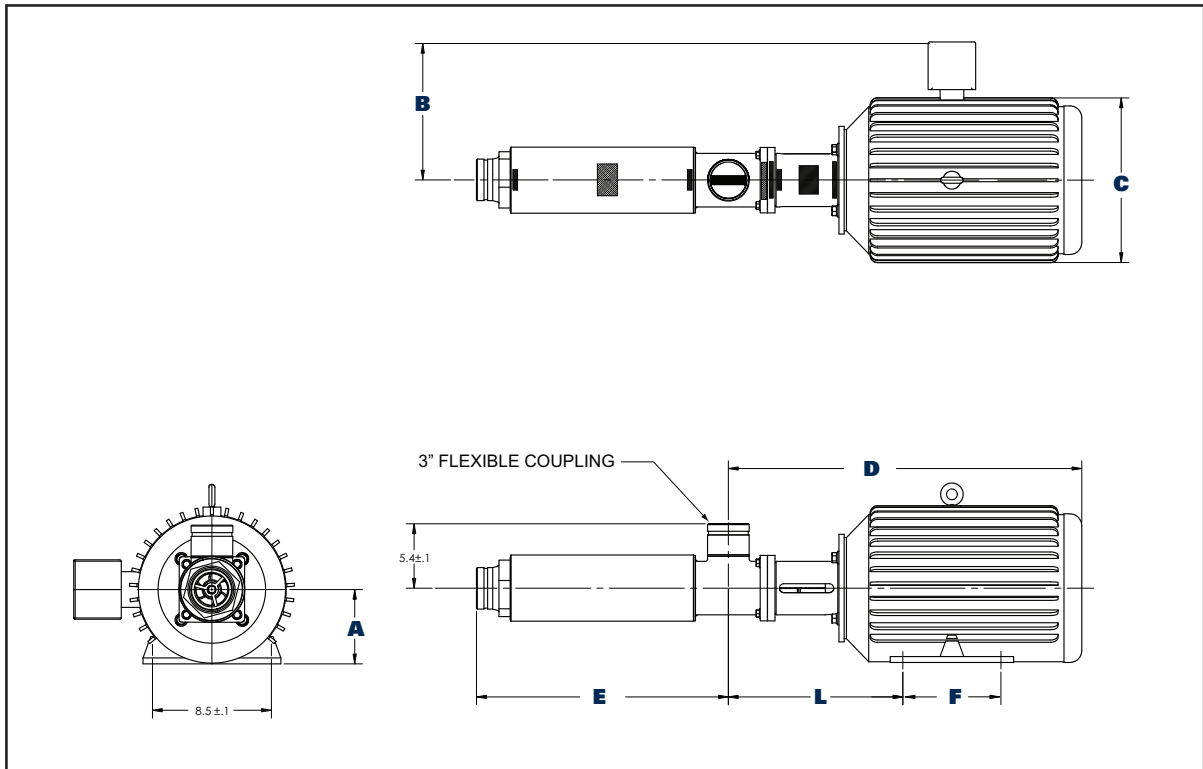
PX-2403

PX-8503

PX-8504



External Dimensions



Models	A	B	C	D	E	F	L	
HP 2403	6.25	11.6	13.8	31.4	21.9	10.0	-01=14.7	-02=14.2
HP 2402	6.25	11.6	13.8	29.7	17.6	8.3	-01=14.7	-02=14.2
HP 1254	6.25	11.5	13.8	29.7	21.2	8.3	-01=14.7	-02=14.2
HP 1253	5.25	8.3	11.8	26.9	18.1	7.0		13.4
HP 8504	5.25	8.3	11.8	25.5	16.9	7.0		13.4
HP 8503	4.5	6.4	10.0	25.8	14.9	5.5		12.5

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