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**Energy Recovery,  
Inc. Pressure  
Exchanger  
PX - 90S**

REV	BY	CKD	REVISION	DATE
0	RBC	RLS	Issued for distribution	6/15/2004
1	IBC	RLS	Added filter requirement	3/7/2007

**DESCRIPTION:**  
**TECHNICAL DATA SHEET,  
POSITIVE DISPLACEMENT ENERGY  
RECOVERY DEVICE**

**SHEET**  
1 of 1  
**Document Number**  
80030-01  
**MANUFACTURER**  
ERI

Part Number	<b>40017-02-1</b>	Service:	Reference:
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Item No.	Category	Description	Value	Item No.	Category	Description	Value	Yes	No	
4	OPERATING CONDITIONS	Liquid	Seawater	42	TEST	Manufacturer's Std.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5		Operating Temperature	33°F-120°F (0.6-49°C)	43		Performance		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6		Max Temperature	120°F (49°C)	44		Case Hydrotest		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7		Specific Gravity	1025.18 kg/cu.m	45		Dismantle and Inspection		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8		Viscosity	1.060 cP @ 70°F (21°C)	46		Cavitation Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9		Maximum High-Pressure Inlet Flow	90 gpm (20 m³/hr)	47		Vibration Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10		Maximum Low-Pressure Outlet Flow	90 gpm (20 m³/hr)	48		Witnessed Test		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11		Maximum Outlet High Pressure	1200 psig (82.7 bar)	49						
12		Maximum Outlet Low Pressure	150 psig (10.3 bar)	50		INSPECTIONS	Piping Dimensions		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13		Maximum Inlet High Pressure	1200 psig (82.7 bar)	51			Port Connections		<input checked="" type="checkbox"/>	<input type="checkbox"/>
14		Minimum Inlet Low Pressure	N/A	52			Vessel Housing Dimensions		<input checked="" type="checkbox"/>	<input type="checkbox"/>
15		Minimum Discharge Pressure	14.5 psig (1 bar)	53			Ceramic Dimensions		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16		Filtration Requirement (Nominal)	5µm	54						
17				55						
18		PERFORMANCE	Peak Efficiency	96%			56			
19			Maximum High Pressure Differential	17 psig (1.2 bar) @ 90 gpm		57				
20			Maximum Low Pressure Differential	14 psig (1.0 bar) @ 90 gpm		58				
21	Maximum Lubrication Flow		1.9 gpm (0.4 m³/hr)	59						
22	Maximum Speed		1500 rpm	60	SHIPPING WEIGHT & DIMENSIONS	PX-220 Shipping Dimensions	30" x 12" x 10"			
23	Maximum Salinity Increase at Membranes		3% @ 40% Recovery	61		PX-220 Shipping Weight	55 lbs. (25 kgs.)			
24	Maximum Noise Allowable		89 dBA	62		Cartridge Weight				
25			63	Cartridge Shipping Dimensions						
26	** Housing	GRP	64	Spare Parts Kit Weight						
27	Rotor, Sleeve, Endcover Assembly	Ceramics-alumina	65	Spare Parts Kit Dimensions						
28	Low Pressure Inlet Port Fitting	AL-6XN*	66	Tool Kit Weight						
29	Low Pressure Outlet Port Fitting	AL-6XN*	67	Tool Kit Dimensions						
30	High Pressure Inlet Port Fitting	254 SMO**	68							
31	High Pressure Outlet Port Fitting	254 SMO**	69	MISCELLANEOUS						
32	Access Cover, Housing Endclosure	GRP	70							
33	Internal Low Pressure Interconnector/nipple	Titanium	71							
34	Fasteners/Hardware (non-wetted)	316SS	72							
35	Tension Rod Assembly	Titanium	73							
36	O-rings	EPDM	74							
37	PIPE CONNECTIONS	Low Pressure Inlet Port Fitting	1-1/2" flexible type		75					
38		Low Pressure Outlet Port Fitting	1-1/2" flexible type		76					
39		High Pressure Inlet Port Fitting	1-1/2" flexible type	77						
40		High Pressure Outlet Port Fitting	1-1/2" flexible type	78						
41				79						

\*AL-6XN is a registered trademark of Allegheny Ludlum; \*\*254 SMO is a registered trademark of Avesta Sheffield Aktiebolag Corporation  
ERI RESERVES THE RIGHT TO MAKE SPECIFICATION CHANGES AT ANY TIME WITHOUT PRIOR NOTICE.

PRICE:	<b>sales@energy-recovery.com</b>	SHIPPING:		DELIVERY:	
MANUFACTURER:	<b>Energy Recovery, Inc.</b>	MODEL NO.	<b>PX-90S</b>	WEIGHT:	<b>55 lbs. (25 kgs.)</b>