

		1717 Doolittle Dr. San Leandro, CA 94577, USA Phone: 1-510-483-7370 FAX: 1-510-483-7371		Energy Recovery, Inc. Pressure Exchanger Specifications Sheet PX-45S		REV	BY	CKD	REVISION	DATE
DESCRIPTION: TECHNICAL DATA SHEET, POSITIVE DISPLACEMENT ENERGY RECOVERY DEVICE		Sheet Page 1 of 1		Document number: 80041-01		1	IBC	RLS	Added filter requirement	3/7/2007
						2	JMP	JGM	New format	4/1/2009
		3	RC			RBC	Filtration requirement	8/5/2010		
		4	RBC			RAB	General update	2/13/2012		
1. Part number			40011-03			2. Service			3. Reference	
4	OPERATING CONDITIONS	Liquid	Seawater	44	TESTS	Performance	Standard			
5		Operating Temperature	33°F-120°F (0.6-49°C)	45		Case Hydrotest	Standard			
6		Max. Temperature	120°F (49°C)	46		Rotation Speed Test	Standard			
7		Specific Gravity	1.03	47		Die Penetrant Test (ceramics)	Standard			
8		Viscosity	1.06 cP @ 70°F (21.1°C)	48		Cavitation Test	Standard			
9		Maximum High-Pressure Inlet Flow	45 gpm (10 m3/hr)	49		Witnessed Test	Optional			
10		Maximum Low-Pressure Outlet Flow	45 gpm (10 m3/hr)	50						
11		Maximum Inlet Low Pressure	300 psig (20.7 barg)	51						
12		Maximum Inlet High Pressure	1200 psig (82.7 barg)	52						
13		Minimum Discharge Pressure	14.5 psig (1 bar)	53						
14		Filtration Requirement (Nominal)	20µm	54		Outside Dimensions	Standard			
15				55		Internal Components	Standard			
16				56		Housing Dimensions	Standard			
17				57		Ceramic Dimensions	Standard			
18	PERFORMANCE	Peak Efficiency	96%	58	INSPECTION	Material Certificates	Standard			
19		Maximum High Pressure Differential	10 psig (0.7 bar) @ 45 gpm	59		Visual	Standard			
20		Maximum Low Pressure Differential	11 psig (0.8 bar) @ 45 gpm	60		Packing and Crating	Standard			
21		Maximum Lubrication Flow	2.1 gpm (0.5 m3/hr)	61						
22		Maximum Rotational Speed	1500 rpm	62						
23		Maximum Salinity Increase at Membranes	5% @ 40% Recovery	63						
24				64						
25				65						
26	MATERIALS	Housing***	GRP	66	SHIPPING WEIGHT AND DIMENSIONS		30x11x12 inch			
27		Rotor, Sleeve, Endcover Assembly	Ceramic-alumina	67		PX45S unit Shipping Dimensions	76x28x30 cm			
28		Low Pressure Inlet Port Fitting	CN3MN	68		Cartridge Shipping Dimensions	15x11x12 inch			
29		Low Pressure Outlet Port Fitting	CN3MN	69			38x28x30 cm			
30		High Pressure Inlet Port Fitting**	254 SMO	70		PX45S unit Shipping Weight	55 lbs. (25 kg)			
31		High Pressure Outlet Port Fitting**	254 SMO	71		Cartridge Weight	15 lbs. (7 kg)			
32		Internal Low Pressure Interconnector*	*AL6XN, Superduplex or Titanium	72		Shipping and storage temperature	33°F - 120°F (0.6°C - 49°C)			
33				73						
34		Fasteners/Hardware (non-wetted)	316SS	74						
35		Tension Rod Assembly*	*AL-6XN / C-276	75						
36	O-rings	EPDM	76							
37	PIPING CONNECTIONS	Low Pressure Inlet Port Fitting	1 -1/2" Grooved-end Flexible Pipe Coupling	77	MISCELLANEOUS					
38		Low Pressure Outlet Port Fitting		78						
39		High Pressure Inlet Port Fitting		79						
40		High Pressure Outlet Port Fitting		80						
41			81							
42			82							
43			83							

*AL-6XN is a registered trademark of Allegheny Ludlum

**254 SMO is a registered trademark of Avesta Sheffield Aktiebolag Corporation

***Housing designed in accordance with the engineering standards of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers.

ERI RESERVES THE RIGHT TO MAKE SPECIFICATION CHANGES AT ANY TIME WITHOUT PRIOR NOTICE.

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MANUFACTURER: Energy Recovery Inc		MODEL: PX-45S