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energy recovery

Energy Recovery, Inc.
Turbocharger
Specifications Sheet
AT-425

Sheet
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Document number:
80377-01

REV	BY	CKD	DESCRIPTION	DATE
0	ERK	RBC	Initial Release	10/1/12
1	ERK	RAB	Added thrust bearing, weights updated	8/10/17

DESCRIPTION:
TECHNICAL DATA SHEET, CENTRIFUGAL ENERGY RECOVERY DEVICE

1.Part number | | **S/N:** | 2. Service | 3. Reference

4	OPERATING CONDITIONS	Liquid	**Seawater/Concentrate**	39	TESTS	Performance	**Standard**
5		Operating Temperature	**33°F-120°F (0.6-49°C)**	40		Case Hydrotest	**Standard**
6		Max. Temperature	**120°F (49°C)**	41		Balance Test Rotating Assy	**Standard**
7		Specific Gravity (Nominal)	**1030 kg/m3**	42		Witnessed Test	**Optional**
8		Allowable Hydraulic Envelope	**See Turbocharger Projection**	43		Certified Test Data	**Optional**
9		Maximum Turbocharger Operating Pressure	**1200 psig (82.7 bar)**	44			
10		Maximum Outlet Low Pressure, Turbine-Side	**N/A**	45	INSPECTION	Outside Dimensions	**Standard**
11		Minimum Exhaust Pressure	**14.5 psig (1.0 bar)**	46		Internal Components	**Standard**
12		Filtration Requirement (Nominal)	**10µm**	47		Casing Dimensions	**Standard**
13		Bearing Lubrication	**Process Lubricated**	48		Bearing Dimensions	**Standard**
14	PERFORMANCE	Peak Efficiency	**Contact ERI**	49		Visual	**Standard**
15		Maximum Boost Pressure	**Contact ERI**	50		Packing and Crating	**Standard**
16		Maximum Salinity Increase at Membranes	**0%**	51		Material Certificates	**Optional**
17		Nominal Sound level	**85 dBA**	52			
18				53			
19				54			
20				55			
21	MATERIALS	Casing	**Duplex 2205 or better**	56	SHIPPING WEIGHT & DIMENSIONS	Estimated Unit Weight	**100lbs. (45kgs.)**
22		Rotating Assembly	**Duplex 2205 or better**	57			
23		Bearings (non-thrust)	**Carbon Graphite**	58		Unit Dimensions	**SEE DRAWING**
24		Fasteners/Hardware (non-wetted)	**316SS**	59			
25		O-rings	**EPDM**	60		Estimated Shipping Weight	**153lbs. (69kgs.)**
26		Thrust Line Assembly	**Duplex 2205 or better**	61		Estimated Shipping Dimensions	**22" x 24" x 26"**
27		Auxillary Line & Fittings	**Duplex 2205 or better**	62			
28		Auxillary Valve	**Duplex 2205 or better**	63			
29		Volute Inserts	**PET-P**	64			
30		Thrust Bearing	**ERI Polymer 231**	65			
31		Retaining Rings	**Passivated 316SS**	66			
32	PIPING CONNECTIONS	Pump-Side Inlet Port Fitting	**2" Grooved-end Flexible Pipe Coupling**	67	* OPTIONAL	*Complete Unit (wetted parts)	**Super Duplex 2507**
33		Pump-Side Outlet Port Fitting		68		*Pipe Connections	**Flanges**
34		Turbine-Side Inlet Port Fitting	**2" Grooved-end Flexible Pipe Coupling**	69			
35		Turbine-Side Outlet Port Fitting		70			
36				71			
37				72			
38				73			

Notes:

Flow capacities are typical or nominal for the selected model. Variations in pressures may shift the flow capacities up or down. Please contact ERI for final sizing. ERI reserves the right to make specification changes at any time without prior notice.

PRICE: desalsales@energyrecovery.com | **Authorization:**

MANUFACTURER: Energy Recovery Inc | **MODEL:** AT-425