

# SPECIFICATION SHEET

Low Pressure Drive(LPD) Turbine

MODEL LPD-80

Energy Recovery Device



HYDRAULIC DESIGN	
TURBINE	Impeller vanes custom designed and machined for optimal efficiency at design conditions.
BRINE CONTROL	Integral variable area auxiliary nozzle optional. Electronic actuator optional.

FITTINGS		
TURBINE PIPE JOINTS (Grooved-style couplings)	Brine Inlet	2"
	Brine Outlet	3"
EYE BOLTS	Motor only	

OPERATING PARAMETERS	
LIQUID	Seawater, brine, Brackish, Process
OPERATING TEMPERATURE	0.6 - 70.0° C
MAXIMUM STORAGE TEMPERATURE	85° C
MINIMUM FLOW*	24 m <sup>3</sup> /h
MAXIMUM FLOW*	96 m <sup>3</sup> /h
MAXIMUM OPERATING PRESSURE	35.0 bar
MINIMUM BRINE OUTLET PRESSURE	0.5 bar
FILTRATION REQUIREMENT	20 microns

\*Range may vary. Custom hydraulic passages are built to customer specifications.

DRIVE	
MOTOR	Available per customer specific requirements NEMA FRAME STANDARD, IEC AVAILABLE
VARIABLE FREQUENCY DRIVE	Available per customer specific requirements

PERFORMANCE	
PEAK EFFICIENCY	Contact FEDCO for specific performance data

BEARINGS	
RADIAL	Sleeve (lubricated by product)
THRUST	FEDCO Water Bearing™ Product Lubricated Hydrostatic/Hydrodynamic type
COOLING	Product provides cooling to all bearings
LUBRICATION	Product lubricated (no user lubrication required)

MATERIALS	
SHAFT	Duplex 2205 one-piece construction machined from bar stock S31803 ASTM A276/479
BOLTING	316 SS S31600 A193/A320/F593
INLET/DISCHARGE	316 SS S31600 ASTM 351 (Duplex 2205 Option S31803 ASTM A890)
IMPELLERS	316 SS S31600 ASTM 276/479 (Duplex 2205 Option S31803 ASTM A276/479)
NOZZLE RING	316 SS S31600 ASTM 276/479 (Duplex 2205 Option S31803 ASTM A276/479)
WEAR RING	Ertalyle ASTM D638/D3418
MOTOR ADAPTOR	Anodized aluminum casting
MOTOR COUPLING	Flexible disc coupling (Horizontal Mount) - FNC treated Carbon Steel S45C ASTM 1045 Duplex 2205 S31803 ASTM A276/479 (Vertical Mount Drop Out Type)
MECHANICAL SEAL	316 Carbon silicon carbide Buna N FITS ISO DIN/ANSI TYPE 2100
COUPLING GUARD	316L S31603 ASTM 276/479
BEARING DRAIN LINE TUBING / THROTTLE NIPPLE	Duplex 2205 SA789-11a ASTM A789-10 /Duplex 2507 S32750 ASTM A276/479
BEARING	Non-metallic
O-RING	BUNA

TESTING AND INSPECTION	
PERFORMANCE TEST **Hydraulic Institute (HI) Hydrostatic and Centrifugal Pump Testing Standards	Standard
HYDROSTATIC TEST **Hydraulic Institute (HI) Hydrostatic and Centrifugal Pump Testing Standards	Standard
VISUAL/DIMENSION CHECK	Optional
WITNESS TEST	Optional
CERTIFIED TEST DATA	Optional
MATERIAL CERTIFICATES	Optional
VIBRATION TEST	Optional

SHIPPING	
PROTECTIVE COVERS/EXPORT CRATING	Standard
ADDITIONAL SHIPPING OPTIONS	Available per customer requirements
ESTIMATED UNIT WEIGHT	Contact FEDCO

OUTLINE	
OUTLINE DIMENSIONS	Each LPD model is custom designed to specific customer requirements. Contact FEDCO.



NOTE: All numeric values are based on performance norms. Specific performance data is included with each individual unit. FEDCO reserves the right to make specification changes at any time without prior notice. Please contact your FEDCO representative for information. email: sales@fedco-usa.com

\*\*General Code Groups, Associations, Laboratories, and Approval Bodies include the American Society for Testing and Materials (ASTM), the International Organization for Standardization (ISO), and the NSF International.