

FEDCO IS THE INDUSTRY LEADER IN
INNOVATIVE ENERGY RECOVERY DEVICES



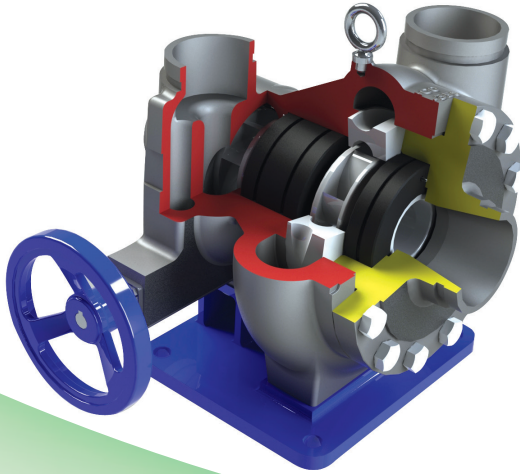
DESALINATION : REVERSE OSMOSIS

FEDCO HPB SERIES

HYDRAULIC PRESSURE BOOSTER
TURBOCHARGER ENERGY RECOVERY DEVICE

HPB Hydraulic Pressure Booster Turbocharger Energy Recovery Device Series

The FEDCO HPB turbocharger recovers the brine energy stream from your reverse osmosis (RO) systems to provide feed stream pressure boosting. Each HPB is custom built to customer flow and pressure requirements. Pioneering software converts the customer requirements into CNC programs to machine hydraulically optimal feed and brine channels. Machined flow passages are ideal for the best system efficiency for your RO plant.



Benefits:

Custom Engineered Solution

Highest Efficiency

Small Footprint

Low Capital Cost

Low Life Cycle Cost

Reduced System Energy Consumption

The FEDCO HPB energy recovery device does not require splitting of feed flows, multitude of valves, elbows, fittings or additional pumps, thus, with its operational ease, minimal pressure losses, and no brine leakages. The HPB provides the highest industry pressure boosting for RO units and efficient means of interstage pressure boosting to help conserve energy, reduce the size of the feed pump and motor.

Industry's Best Value

The FEDCO HPB energy recovery units are the preferred choice for growing number of owner operators and end users of reverse osmosis systems for their ease of operation and the industry's lowest life cycle costs while delivering the highest system efficiencies. FEDCO HPB has engineered solutions for small to large reverse osmosis systems.

An OEM's Preferred Choice

Systems builders and end-users both have come to depend on the FEDCO HPB units for their ease

of integration, quick deliveries, simple installation, minimal operator training, ease and reliability of operation and minimal scheduled maintenance.

Compact Footprint

Only the FEDCO HPB has a small footprint for large capacities compared to other energy recovery devices.

FEDCO HPB Innovative Technology

Fully custom engineered products

One piece rotor

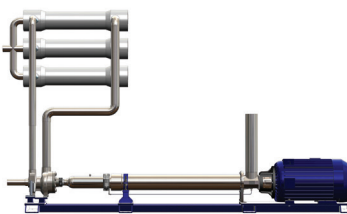
CFD optimized multi-vane diffuser

Rotor Flo™ patented lubrication

No external tubing or auxiliary equipment

Zero brine to feed mixing

Corrosion resistant construction



FEDCO HPB Turbocharger
with FEDCO MSS or MSD
Series Feed Pump standard
seawater RO package.

Quick Delivery

Most FEDCO HPB models are available with lead times as short as four weeks!

FEDCO Service & Support

FEDCO is ready to provide comprehensive service and support for our customers world wide. Our service centers in Singapore, United Arab Emirates and United States allow us to provide local support of spare parts and service for all FEDCO equipment. Our unique loaner rotor program for our HPB Series allows you to continue to operate with no downtime.

- Spare parts delivered fast
- Installation and commissioning
- Operator training
- Technical assistance
- On-site or off-site service
- Loaner rotor program

Superior Proven Efficiency

The FEDCO HPB leads the industry as the only turbocharger in the industry tested to exceed 80% transfer efficiency. Our engineering and manufacturing teams have the most experience and most advanced test equipment for continuous efficiency improvements.

Hydraulic Pressure Booster Turbocharger Energy Recovery Device (ERD)

Technical Info

Capacities:
5-3460 m³/h (22-15,234 gpm)

Pressures:
10- 83 bar (145-1200 psi)

Liquid:
Seawater, brackish water, potable water, concentrate (20 microns)

Temperature:
Up to 40 degrees C

Materials

Casing:
Duplex SS, Super Duplex SS

Rotor:
Duplex SS, Super Duplex SS

Bearings:
Non-metallic

Pipe Connections:
Grooved End

3 YEAR WARRANTY

Options

Flanged Connections
High Pressure Option
Automated Brine Control
*Contact FEDCO for your custom option requirements

Reverse Osmosis Applications

Seawater and Brackish Water
Industrial
Interstage Pressure Boosting
Hotels/Islands/Resorts
Marine
Oil & Gas
Produced Water
Water Reuse

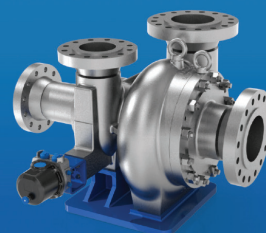
Retrofits

Contact FEDCO to upgrade your existing reverse osmosis desalination plant to state-of-the-art pumps and energy recovery devices.

FEDCO has a broad range of feed pumps, booster pumps, and energy recovery devices for seawater and brackish water reverse osmosis applications.

80+%
EFFICIENCY

FEDCO HPB-1400 model below can handle flows in excess of 1,600 m³/h, shown with flange and actuator options.



Committed to Success

In business since 1997, Fluid Equipment Development Company or FEDCO is committed to being the industry leader in the design and manufacture of innovative fluid machinery. Our products are recognized for their superior quality and reliable performance in the reverse osmosis desalination market. We custom engineer highly efficient pumps and energy recovery devices that system builders and end users can depend on. We support customer operations worldwide with easy to use products and long-term relationships to offer the lowest life cycle cost of ownership. Let FEDCO provide the single source for your pumping equipment needs by making fluid energy work for you.™

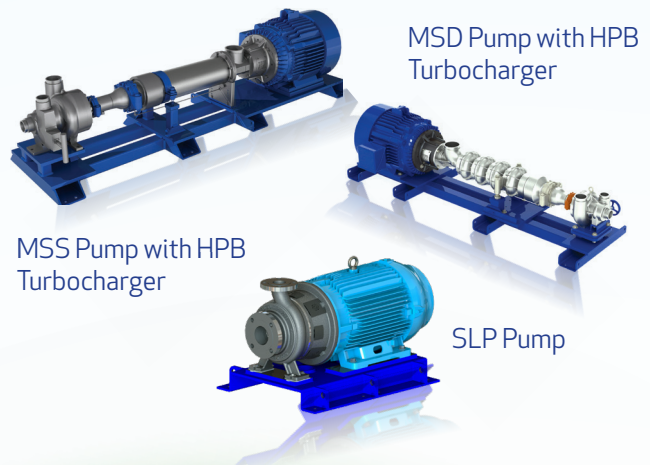
Efficiency in Service & Support

Let us bring world class service to you. FEDCO is ready to provide service and on-site support for our equipment anywhere in the world. Our service team has many years of experience to assist our customers in installation, commissioning, troubleshooting, servicing and field site repairs. When plant optimiza-

tion is needed for modernizing or improving efficiency, our team can provide retrofit solutions for considerable savings potential. Other service support provided by our trained personnel are operator training on-site or at our sales and services offices in the USA and Dubai, UAE.

Choose the FEDCO Pump and HPB Energy Recovery Device for the Most Dependable SWRO Package

Pair the HPB turbocharger energy recovery device with the FEDCO series MSS, MSD or SSD centrifugal feed pump for the industry standard in seawater reverse osmosis (RO) desalination packages. Complete your package with the low pressure feed and booster pump SLP Series.



Global Network

- ★ FEDCO Sales Office
- FEDCO Representatives



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