



UNI-PAC Deaerator System

Designed For Use With Fire Tube or Water Tube Boilers

UNI-PAC™ Deaerators by Newterra® provide a versatile solution for addressing water quality and steam purity requirements across diverse industrial applications, making them ideal and suitable for use in industries like light **manufacturing, chemical processing, food & beverage production, and power generation**. UNI-PAC Packaged Deaerator's capacity ranges from 10,000 lbs per hour and larger for parallel downflow, counterflow or spray-atomizing to best suit every application.

UNI-PAC Deaerator System Features

- Two-stage spray type deaeration utilizing Newterra Accuspray™ spray nozzles and atomizing valve
- Reduces dissolved oxygen concentration of boiler feed water to <7ppb
- Compact horizontal tank design for installation in tight spaces including reduced headroom
- Welded steel deaeration tank with **ASME Stamp**
- Fully integrated system with tank, piping, accessories pre-plumbed, pre-wired and pre-tested at Newterra manufacturing plant
- Variable orifice self-regulating atomizing valve assures maintenance of energy required and guaranteed performance at rates of flow 10-100% of total capacity



Product Benefits

- Effectively removes impurities from source water (or well water)
- Wide Range of permeate flow rates, from 20 to 120 gallons per minute (GPM) (30,000 to 175,000 GPD)
- Compact, Skidded Package
- State-of-the-art Controller
- Remote Monitoring Available
- Equipped with Variable Frequency Drive (VFD)
- Factory Pre-tested

Market Applications

- Ideal and suitable for a variety of applications such as Light Manufacturing, Chemical Processing, Food & Beverage Production, and Power Generation





UNI-PAC™ Deaerator System by Newterra

Included Components

- Newterra Atomizing valve
- Steam inlet control valve (*supplied loose*)
- Water inlet control valve assembly (*supplied loose*)
- Vacuum breaker
- Deaerator vent with orifice and valve
- Assembled level gauge with level transmitter, sight gauge, three level switches, isolation valves and piping to deaerator
- Pressure relief valve (*Sentinel*)
- Pressure relief valve (*full system*)
- Overflow control valve with fail open actuator and solenoid valve
- Pressure gauge
- Thermometer
- Two (2) 100% duty, low NPSH, vertical multi-stage boiler feed pumps
- Two (2) recirculation piping assemblies with fixed orifice, isolation valve and check valve
- Two (2) pump suction piping assemblies with isolation valve
- Two (2) pump discharge piping assemblies with isolation valve, pressure gauge, check valve
- NEMA 12 control panel complete with alarm lights, horn and silence button, microprocessor controller, motor starters and on/off selector switches for pumps

Model Code	Capacity (lb/hr)	Steam Inlet Size	Tank OD	Tank SS	Tank OAL	Minutes to Overflow	Total Footprint Dimensions
UP-AH3-10	10,000	3"	4'-0"	10'-0"	11'-7"	23.18	H: 10'-8" W: 4'-10" L: 13'-6"
UP-AH3-20	20,000	3"	4'-0"	10'-0"	11'-7"	12.92	H: 11'-2" W: 5'-4" L: 14'-8"
UP-AH3-30	30,000	3"	4'-6"	11'-0"	12'-9"	13.64	H: 11'-2" W: 5'-4" L: 14'-8"
UP-AH3-40	40,000	3"	4'-6"	11'-0"	12'-9"	10.23	H: 11'-8" W: 5'-10" L: 15'-11"
UP-AH4-50	50,000	4"	5'-0"	12'-0"	13'-11"	11.84	H: 11'-8" W: 5'-10" L: 15'-11"
UP-AH4-60	60,000	4"	5'-0"	12'-0"	13'-11"	10.08	H: 13'-2" W: 6'-6" L: 17'-1"
UP-AH6-70	70,000	6"	5'-6"	13'-0"	15'-1"	12.10	H: 13'-2" W: 6'-6" L: 17'-1"
UP-AH6-80	80,000	6"	5'-6"	13'-0"	15'-1"	10.59	H: 13'-8" W: 6'-12" L: 17'-11"
UP-AH8-90	90,000	8"	6'-0"	13'-0"	15'-3"	11.91	H: 13'-8" W: 6'-12" L: 17'-11"
UP-AH8-100	100,000	8"	6'-0"	13'-0"	15'-3"	10.72	H: 13'-8" W: 6'-12" L: 17'-11"

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The Newterra Atomizing Deaerator is a two-stage design. In the first stage, water is sprayed in direct contact with steam and heated practically to saturation temperature. At this stage the bulk of the non-condensable gases are liberated and all released gases are discharged from the unit. The preheated, partially deaerated water then passes to the second stage where it comes in contact with a constant high velocity steam jet for final deaeration. The steam jet is created by a variable orifice atomizing valve which is self-compensating to changes in load or variation in operating conditions. The energy of the steam jet breaks up the water, producing a mist or fog of finely divided particles to assure maximum surface exposure to the scrubbing steam. Any remaining gas is removed and carried to the first stage by the steam, while the deaerated water falls to the storage section.

What's Your Unique Water Question?

For just about any water problem, Newterra has you covered. Our temporary ownership and rental solutions can save precious capital while solving a critical need. Newterra offers flexible terms and conditions to suit any customer.

Contact us today at [+1 800.420.4056](tel:+1800.420.4056) or visit us online at newterra.com



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