

1 tank specifications & features



- Our EF310 model is 23' long and 56' wide
- Tank components and all piping manufactured to Canadian Welding Bureau standards.
- Fully engineered water flow simulation analysis (spray bars and jacket water) for optimal heating efficiency and fuel savings.
- Slim design for optimizing integration space and maximizing accessibility to heater components.
- Proprietary exhaust heat capture system, easy service.
- Proprietary mist extractor.
- Stack water filter and conveniently mounted blow/drain valve.
- Proprietary spray bar design for simple access and inspection/ cleanout
- 2 sight glasses for internal heater flame/water viewing.
- Easy access tank manway and jacket water cleanout ports.
- Non-pressurized system.
- No regulatory inspections or operating tickets necessary.



Heater performance examples at varied flow rates (single water flow pass)

| model | btu input | max water output temp | flow rate | temp rise (single pass) | flow rate | temp rise (single pass) |
|--------|-----------|-----------------------|-----------|----------------------------|------------|----------------------------|
| EF 430 | 43MM | 167F / 75C | 1300 gpm | 62 deg F | 5.0 M3/min | 36 deg C |
| | | | 1200 gpm | 68 deg F | 4.6 M3/min | 38 deg C |
| | | | 1100 gpm | 74 deg F | 4.2 M3/min | 42 deg C |
| EF 310 | 31MM | 167F / 75C | 900 gpm | 65 deg F | 3.4 M3/min | 36 deg C |
| | | | 800 gpm | 72 deg F | 3.0 M3/min | 40 deg C |
| | | | 750 gpm | 75 deg F | 2.8 M3/min | 42 deg C |
| EF 270 | 27 MM | 167F / 75C | 900 gpm | 57 deg F | 3.4 M3/min | 31 deg C |
| | | | 800 gpm | 63 deg F | 3 M3/min | 34 deg C |
| | | | 750 gpm | 67 deg F | 2.8 M3/min | 36 deg C |
| EF150 | 15 MM | 167F / 75C | 900 gpm | 32 deg F | 3.4 M3/min | 18 deg C |
| | | | 800 gpm | 36 deg F | 3.0 M3/min | 20 deg C |
| | | | 750 gpm | 38 deg F | 2.8 M3/min | 21 deg C |
| EF100 | 10 MM | 167F / 75C | 900 gpm | 21 deg F | 3.4 M3/min | 12 deg C |
| | | | 800 gpm | 24 deg F | 3.0 M3/min | 13 deg C |
| | | | 750 gpm | 26 deg F | 2.8 M3/min | 14 deg C |

Note: btu's and water flow rates are scalable for customized applications





02 burner specifications

- Vitotherm high efficiency forced draft tri-fuel burner diesel, propane, natural gas, instant fuel switching
- Quiet operation, no air compressor required for combustion, 100% outside air ducting.
- Easy serviceability, swing away hinged blower housing to access combustion components.
- 2 supplied gas trains, (propane and natural gas) compact and mounted on top of heater tank.
- Electronic spark ignition.
- Full safety shutdowns.
- Autoflame MK8 control package with Data Transfer Interface for remote monitoring / training / supervision.
- HMI digital display easy operation, digital combustion curve program uploaded and easily adjustable by technicians, backup program kept on file.
- Autoflame BMS and safety features





water pump specification & controls

- 2 operating pumps variable sizing Berkeley long life centrifugal, VFD controlled, variable output. Pump pressures according to customer requests.
- 2-4" discharge water camlocks, manual butterfly valves on each. (mobile units)
- 2-6" suction water camlocks, manual butterfly valves on each. (mobile units)
- Proprietary built in suction priming/tank draining system 2"
 T&E gear pump, automated with electric butterfly valves (no external prime or drain system needed).
- Pressure transducer tank level control for consistent operation.
- High tank level sensor and suction water emergency slammer valves eliminates flooding.

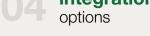
- HMI digital display and control screen designed for simple operation, minimal training, operations logging and reporting, and simple diagnostics/troubleshooting.
- Electric water flow control valves and meters, no air required for heater operation.
- Full safety shutdowns.
- Data Transfer Interface for remote monitoring of water flows, temperature, and pumps.











- Robust 40 ft hi-cube intermodal sea container, customized, insulated lining and painted exterior.
- Integrated office room with desk.
- Generator/electrical room lined with sound attenuation foam walls and ceiling.
- Generous exterior worksite LED lighting, internal 12v and 110v LED lighting.
- Packaged and mounted in a standard 40' intermodal container with air ride trailer chassis.
- Reasonable footprint on lease, with maneuverability.
- Other integration solutions also available.
- Trailer style units or skidded units available



generator & air compressor

- Isuzu engine with Stamford generator, 120Kw 150Kva prime power. (Canadian emissions tier 3)
- or JCB engine with Stamford generator, 105Kw 130Kva (USA Emissions Tier 4)

1110 41st Street North

- or customer supplied choice
- Integrated 454 litre diesel fuel tank (approx. 30hr run time) c/w quick switch valve for external fuel tank.
- 60gal vertical tank c/w 240v air compressor for water hose blow out.



permanent facility installations

- Mining processes, food processing CIP's (clean-in-place), pond heating, large scale washing systems, high volume fuel efficient water heating applications
- Skid mounted package tank size, water flows and burner BTU's are scalable
- High BTU's with minimal space requirements
- Customizable PLC programming, HMI interface, and monitoring system to communicate with existing facilities, multi unit
 integrated operation Internal hot water storage for lower water usage applications, or maintain a temperature on external large
- storage tanks
- Low NOx, low CO, high efficiency burner
- Carbon steel or stainless steel options
- Low maintenance robust design
- No annual regulatory inspections or operator certifications required

