

INDECK[®]

SOLID FUEL BOILER SOLUTIONS

2-DRUM BOILERS

VL BOILERS

A-BOILERS

LAMONT HOT WATER GENERATORS



800.322.5995

Indeck LaMont Solid Fuel Model

For Hot Water Generation

The Indeck LaMont solid fuel model is designed especially for biomass fuels and combines the special, forced circulation features of the successful gas and oil fired LaMonts with a vertical gas flow, vertical tube wall furnace to accommodate biomass firing systems. The solid fuel LaMont has the following features:

- Designed for hot water- controlled force circulation- not a converted boiler
- Ratio of radiant surface to convective surface is identical for each tube to avoid uneven heating distribution
- Radiant section is connected to the convective section in series to prevent steaming
- Heat transfer is counter flow (water to combustion gases) for maximum efficiency
- Tangent tube wall construction minimizes thermal stresses during process upsets
- Seal casing design isolates insulation from flue gas to prevent condensation of acid gases on outer casing
- Selection of grate technologies or bubbling fluidized bed



• A Solid Fuel High Temperature Hot Water Generator •



• Solid Fuel LaMont's in a District Heating Plant •

Experience

For over 160 years Indeck and its predecessors have designed, engineered and manufactured watertube boilers firing solid fuels of every imaginable type including agricultural waste, woodwaste, bagasse, rice hulls, MSW, RDF, bituminous, lignite and anthracite coals, whole and chipped tires and many others. Indeck's product line is one of the most diverse of all the industrial boiler suppliers and also includes natural gas, fuel oil, low BTU gas fired boilers and gas turbine exhaust and waste heat boilers. Indeck would be pleased to put our experience to use for your application.

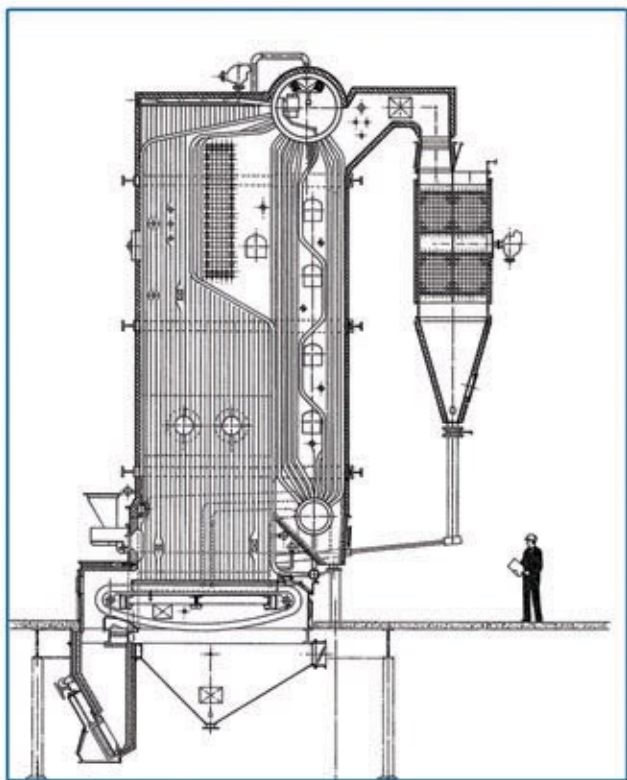
Total System Responsibility

Today's stricter environmental regulations demand that biomass steam generator systems include a wide array of air pollution control equipment. Indeck has the knowledge and experience to select the right equipment for your particular emissions requirements. Indeck can provide a total chute to stack scope including mechanical dust collectors, fabric filters, ESP's, SCR's, SNCR's, CO catalysts and flue gas desulfurization systems.

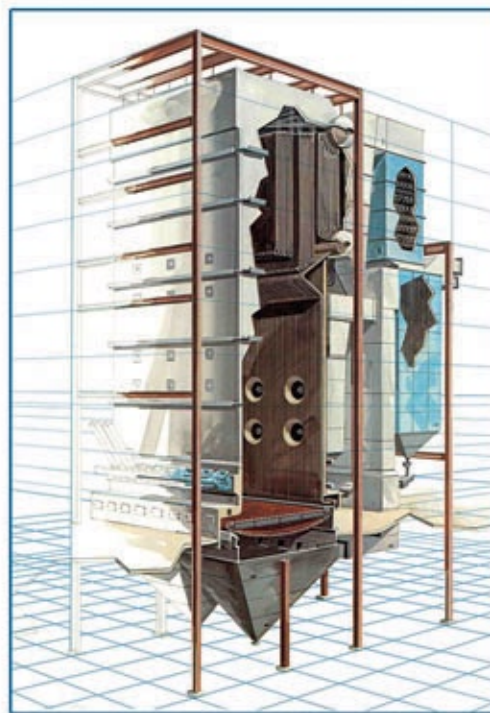
Indeck 2-Drum Boilers

Indeck offers the 2-drum boiler to fire biomass fuels from 30,000 lb/hr to 600,000 lb/hr steam flow, steam pressures to 1,800 PSIG operating and steam temperatures to 1050° F. 2-drum boilers feature the following:

- Vertically oriented welded membrane wall furnace
- Pendant, single or two stage superheaters with attemperation
- Long flow or cross flow boiler sections to suit the fuels fired
- Steam drum with Indeck's multi-stage steam separation equipment
- Tubular airheaters and/or economizers for high efficiency design
- Selection of grate technologies (Travagrate, vibrating grate) or bubbling fluidized bed
- Gas or oil auxiliary firing capability
- Top supported designs for boilers of 100,000 lb/hr steam and above
- Bottom supported designs for boilers up to 100,000 lb/hr steam
- Modular construction available where shipping clearances allow



• Shop Assembled 2-Drum Boiler •



• Top Supported 2-Drum Boiler •



• Shop Assembled 2-Drum Boiler ready to ship •

Field Erected Boilers - 2 Drum Boilers



• Membrane wall furnace with two burner openings in an RDF fired boiler •



• 2-Drum Boiler being erected showing pendant Superheater •

Indeck VL Boilers

The VL Boiler design is a completely shop assembled module available in capacities up to 60,000 lb/hr steam with superheat and includes the following features:

- Vertical gas flow furnace and evaporator in one shop assembled module
- Welded membrane wall furnace and boiler outer walls
- Steam drum with Indeck's proprietary multistage steam separation equipment
- Large diameter mud drum
- Shop insulated and lagged
- Integral structural steel base
- Available with horizontal tube, drainable Superheater with attemperation
- Available with front wall burner system for auxiliary firing
- Can accommodate choice of grate technologies or bubbling fluidized bed



• 2 VL's installed in a heating plant •

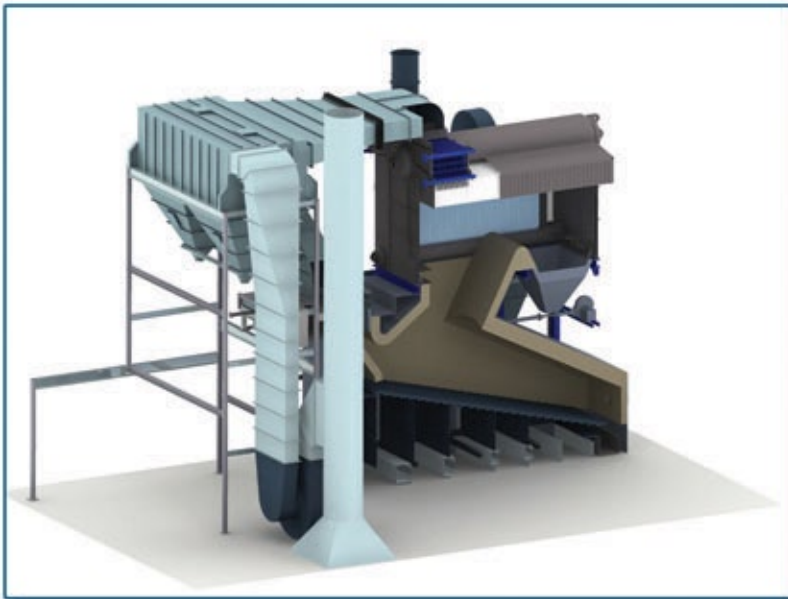


• Shop Assembled VL Boiler •

Indeck A-Boilers

Indeck offers the A - Boiler for fuels that are high ash and high slagging. This boiler has a horizontal flow furnace with an open bottom to promote furnace ash dropout. The Indeck A - Boiler design is a complete shop assembled module with the following features:

- Horizontal gas flow, open bottom furnace, and evaporator in one shop assembled module
- Welded membrane wall furnace and boiler outer walls
- Steam drum with Indeck's proprietary multistage steam separation equipment
- Shop insulated and lagged
- Integral structural steel base
- Available with horizontal tube, drainable Superheater with attemperation
- Can accommodate choice of grate technologies or bubbling fluidized bed



• Shop Assembled Solid Fuel A-Boiler •

• A - Boiler being lifted into place •



Aftermarket Parts & Service

Comprehensive Repair and Upgrade Capability for:

- 2-Drum Boilers
- Keystone Package Steam Generators
- Heat Recovery Steam Generators
- VL Boilers
- Travagrate Stokers
- Experts in Boiler Start-up, Repair, and Upgrades
- Economizers, Airheaters, and Preheaters
- Superheater and Economizer Elements
- Steam Drum Internals & Steam Purifiers
- Burners, Fuel Feeders, & Boiler Tubes
- Highly Knowledgeable Field Service Consultants and Construction Supervisors

Indeck is the Exclusive Supplier of O.E.M. Boiler Parts and Services for:

- Erie City Iron Works
- Zurn Energy Division
- Aalborg Industries, Inc. (Industrial Land Based Boilers)
- Indeck Boiler
- Volcano
- International-LaMont
- Starfire
- International Boiler Works
- Thermoflo



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