

EVAPORATORS AND CONCENTRATORS



FEATURES

- Tubular and Plate designs available.
- Both Rising Film and Falling Film tubular technology available, depending on customer and process requirements.
- Flooded, forced circulation technology with enhanced flow characteristics.
- Positive non-condensable gas venting.

BENEFITS

Lundberg is a leading supplier of evaporation technology. Applications of our technology include full sets with integrated condensate strippers and high solids concentrators, reconfigurations of your existing evaporator, blow heat pre-evaporation systems, and flash evaporators. The technology utilized is matched to the specific requirements of each application.

We offer a full range of tubular evaporation technologies, including falling film, long tube vertical, and enhanced flooded forced circulation designs. Our experience in evaporation ranges from ethanol production to classical softwood or hardwood kraft black liquor systems found in paper mills, to very difficult to evaporate liquors, such as wheat straw and bagasse.

CONTACT

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LUNDBERG'S AREAS OF EXPERTISE

BY-PRODUCT RECOVERY

- Tall Oil Soap
- Turpentine
- Acidulation
- Condensing
- Storage
- Storage

CHEMICAL HANDLING AND STORAGE

- Sulfur
- Caustic
- Acids
- Sulfur Dioxide
- Storage
- Vaporization

CHEMICAL GENERATION

- Sulfur Dioxide
- NSSC Pulping Liquor
- Sulfite/Bisulfite Pulping Liquor

EVAPORATORS FOR PULPING LIQUOR

- Multiple-Effect
- Strong Liquor Concentrators
- Pre-Evaporation
- Falling Film
- Vapor Recompression
- Crystallizer
- REX Technology

FOAM CONTROL

- Washer Filtrate
- Foambreaker for Light Foam
- Soap Concentrator for Heavy Foam and Soap
- Weak Liquor Storage
- Soap Skimming

HEAT RECOVERY AND UTILIZATION

- Blow Heat
- Pre-Evaporation
- Digester Heaters and Circulation
- Direct Contact Gas Coolers
- TMP
- Heavy Liquor Heaters
- Waste Heat Boilers
- Condensers
- Hot Water
- Systems
- Steam Generation

LUNDBERG CUSTOM EQUIPMENT

- Pressure/Vacuum Relief Valves (PVRV)
- Flame Arresters
- Jacketed Valves
- Lundberg Soap Separator/Soap Skimming Rake
- Heat Exchangers
- SO₂ Gas Fans
- Heavy Liquor Heaters

POLLUTION CONTROL

- Black Liquor Oxidation
- Condensate Stripping
- Noncondensable Gas
- Direct Fired Oxidizer (DFO)
- Plywood Industry
- Regenerative Thermal Oxidizer (RTO)
- Wet Electrostatic Precipitator (ESP)
- Weak
- Steam
- TRS
- Collection
- Strong
- Heat Exchangers
- Strong
- Air
- MeOH / BOD
- Incineration
- Dilute
- Steam Tunnel Condensate Evaporator
- Regenerative Catalytic Oxidizer (RCO)
- COD
- Scrubbers
- SOG

SPECIAL SYSTEMS

- White Liquor Oxidation
- Sulfur Addition – Kraft Liquor
- Recausticizing – White Liquor
- Ash Treatment Systems – Saltcake
- Air
- Molecular Oxygen

TURNKEY

- Engineering
- Complete EPC