

EnviroAir Inc.

CORECO® Rotary Sweat Furnace

CORECO® Rotary Sweat Furnaces are designed for selectively melting and separating zinc and/or aluminum from mixed metal scrap. They are ideal for foundries, die casters, parts manufacturers, smelters, and scrap processors.

CORECO® Rotary Sweat Furnaces are available in two standard sizes having capacities of 2,000 lbs/hr and 5,000 lbs/hr.



The rotary hearth in the CORECO® Rotary Sweat Furnace is indirectly heated with either two or three heating zones. This provides positive, precise temperature control to selectively melt zinc or aluminum from ferrous and non-ferrous scrap metal parts.

The CORECO® Rotary Sweat Furnace is a simple, automatic, continuous, self-cleaning process. There is no need for manual hearth raking.

The CORECO® Rotary Sweat Furnace is energy efficient, requires low maintenance, and the simple operation results in lower labor costs.

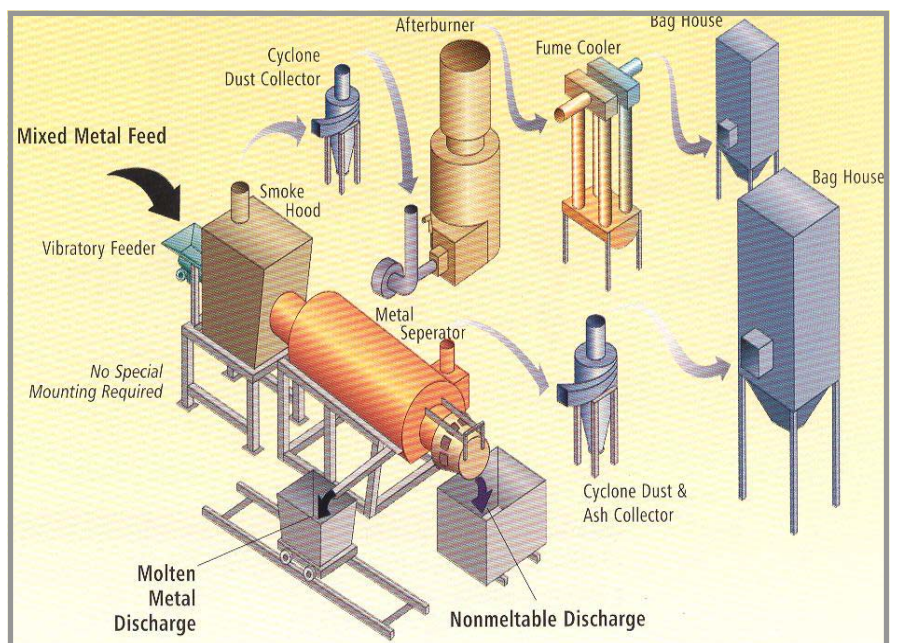
Two separate pollution control systems are typically used with the rotary sweat furnace. The first system captures ashes, oxides, dirt and other fine particulate from the discharge end of the rotary hearth. This system includes:

- Cyclone for removing large particulate
- Baghouse for removing fine particulate

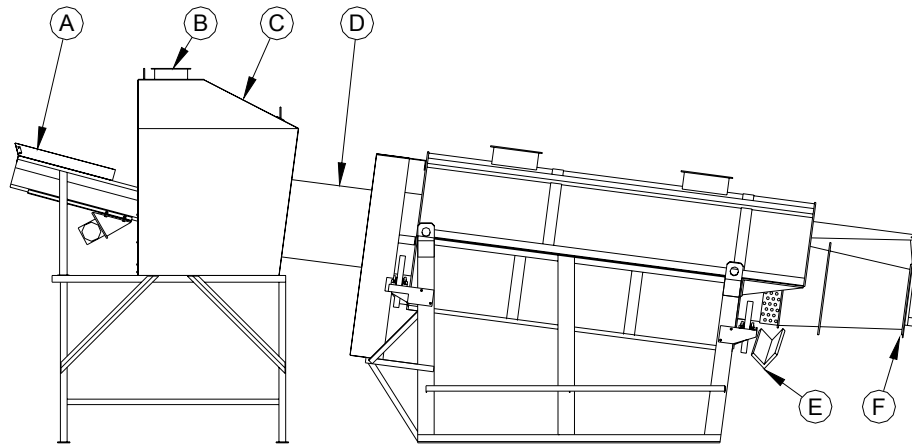
Smokey gases generated in the melting process will be collected in the smoke hood and will be treated by the second pollution control system that includes:

- Cyclone for removing large particulate
- Thermal oxidizer for destroying oil vapor, smoke and VOCs
- Heat exchanger for reducing exhaust temperature
- Baghouse for removing fine particulate

The heat exchanger will reduce the exhaust temperature leaving the oxidizer down to 350°F before entering the baghouse. At 350°F, any acid gases that may be present in the exhaust, will not condense and corrode the heat exchanger or baghouse.



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Functional Description

CORECO[®] Rotary Sweat Furnaces are designed for selectively melting and separating zinc and/or aluminum from mixed metal scrap. They are ideal for foundries, die casters, parts manufacturers, smelters, and scrap processors.

The scrap metal is fed into the vibratory feed chute (A). The vibratory feed chute feeds the scrap material into the rotary hearth (D) where it is heated and melted on a continuous basis. Indirect The rotary hearth is indirectly heated with either two or three separate temperature control zones. This provides positive, precise temperature control to selectively melt zinc or aluminum from ferrous and non-ferrous scrap metal parts.

The molten metal is discharged through a perforated metal section attached to the lower end of the rotary hearth. This molten metal is collected in a transverse positioned launder (E), which feeds the molten metal into the customer's receiving molds. Any drosses and ashes that are formed in the process will also be discharged through the perforated metal section, but angularly displaced from the molten metal discharge. The drosses and ashes are collected in a draft box which is attached to the furnace at this location.

Any non-melted materials such as iron or brass will be discharged at point (F) and can be collected in customer's containers or conveyor.

Combustible contaminants associated with the raw scrap materials will burn during the process. The smoky gases generated will be collected in the smoke hood (C) and exits to the pollution control system at point (B) on the smoke hood.

A few of our other products:



Thermal Sand Reclamation Systems



Thermal Oxidizers



Scrubber Systems

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