



BLACK LAB CORP



WEDRON FLUX
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Manual Flux Drossing Procedure

Choosing the appropriate flux for the application is the first step towards cleaning your metal, furnace refractory and reducing dross weights effectively and efficiently. The flux needs to be specific to the alloy, temperature and furnace type. While some fluxes will work in more than one application it is always best to check with your flux supplier before modifying your process or changing fluxes. Additionally, a trial to prove the effectiveness of the flux in your particular process is always a good idea.

When the proper flux is used appropriately the savings will be immediate.

- Dross weights can be reduced by up to 66% over not fluxing at all.
- For every pound of flux used a savings of 3 pounds of aluminum can be expected.
- Metal cleanliness improves and is achieved faster than by degassing alone.
- Melting efficiency is maximized.
- Furnace Refractory life is easier to maintain and maximize.
- Furnace capacity is maintained.

Once the appropriate flux has been chosen, the procedures listed below will serve as a generic process guide. Since no two Foundries or Die Casters are identical it is best to consult your Wedron Flux Representative for a procedure customized to your process.

Start with 0.1% flux by weight (1 pound of flux per 1,000 pounds of aluminum so for a 10,000 lb furnace start with 10 lbs of flux) and measure dross weights. Adjust amount of flux added to achieve maximum efficiency.

Reverbatory Furnace – Drossing Procedure

- 1.) Turn the furnace to low fire.
- 2.) Broadcast the flux over the surface of the melt as evenly as possible.
- 3.) Using a rake, skimmer or other tool rabble the flux into the surface of the melt.
- 4.) Scrape the sidewalls at the metal level.
- 5.) Close the furnace and allow to sit for approximately 10 minutes.
- 6.) Open the furnace and starting at the sidewall pull the dross from the back of the furnace to the front.
- 7.) Let the dross sit on the hearth to allow aluminum to drain back into the bath.
- 8.) Repeat steps 6 and 7 moving from one sidewall towards the other sidewall as methodically as possible to prevent dross from flowing back into the already skimmed part of the melt.
- 9.) Once the dross has been allowed to sit on the hearth pull the dross into the collection bin.

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Crucible Furnace – Drossing Procedure

- 1.) Broadcast flux evenly over surface of metal.
- 2.) Using a skimmer, rabble the flux into the metal.
- 3.) Allow the flux to sit for a moment to allow aluminum to drain out of the dross.
- 4.) Skim the dross off of the metal surface and place in collection bin.

Electric Furnace (Submersion Heater or Glow Bar)

- 1.) Broadcast flux evenly over surface of metal.
- 2.) Using a skimmer, rabble the flux into the metal.
- 3.) Allow the flux to sit for a moment to allow aluminum to drain out of the dross.
- 4.) Skim the dross off of the metal surface and place in collection bin.

Stack Melter & Jet Melter Furnaces

Despite the melting efficiency of these types of furnaces gas firing in the molten bath will still create oxides and corundum so proper cleaning practices still apply. The dry hearth is best cleaned mechanically, though some situations have benefited from flux.

See ‘Reverbatory Furnace’ section for proper procedure.

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