

# PortaMelt®

ELECTRIC ARC BUTTON REMELT FURNACE

The customizable Cianflone PortaMelt® Electric Arc Button Remelt Furnace makes alloy research easier.



## PRODUCT OVERVIEW

The PortaMelt® Arc Button Remelt Furnace is used to prepare solid metal samples from odd shape materials. This includes drillings, lathe turnings, welding wire, powder, etc.

The customizable Cianflone PortaMelt® Electric Arc Button Remelt Furnace will:

- Melt alloys up to 3600° F.
- The sample charge can be slugs, cuttings, drillings, powders, etc.
- Violence of the arc provides mixing action
- A charge of 50 grams of steel will provide a sample of 1-1/4 inch diameter and approximately 1/4 inch thick.
- Its primary use is for the preparation of spectrographic samples

The PortaMelt® offers a low cost, low maintenance solution that produces homogeneous sample buttons for spectrographic elemental analysis and alloy research.



## SPECIFICATIONS

- Melting times are one minute or less
- Anodes available in carbon graphite and tungsten
- Water-cooled copper crucible is tiltable for easy sample removal
- Customizable if required
- Vacuum vs open-air sample production (sample produced under gas atmosphere.)
- High temperature (3600°F)



## COMMON INDUSTRY APPLICATIONS

- Welding, Recycling, Scrap Metal
- Abrasives / Cleaning
- Purity Measurement
- Manufacturing
- Quality Control and Inbound Purchasing
- Powder Melting
- High Purity Melts



## WORLDWIDE APPLICATION

Companies worldwide depend on Cianflone Scientific to provide efficient and effective portable elemental analysis, coating thickness measurements and sample preparation.

### PortaMelt™ SPECIFICATIONS

<b>Range of metals and alloys that can be remelted</b>	<b>METAL TYPE</b> Aluminum Copper Steel Titanium Chromium Alloys	<b>TEMPERATURE</b> 1220° F 1983° F 2600° F - 2800° F 3040° F 3380° F Up to 3600° F
<b>Copper Crucible Loads</b>	<b>LOAD IN GRAMS</b> 50 72 86 100	<b>BUTTON DIAMETER</b> 1-1/4" 1-1/2" 1-5/8" 1-3/4"
<b>Melting Time</b>	Most high temperature alloys are in the order of 50-60 seconds	
<b>Power Source</b>	400 to 600 amps DC welder would be suitable to melt most alloys *500 amp DC welder optionally available	
<b>Additional Requirements</b>	<b>ACCESSORIES</b> Vacuum pump, 7 CMF Two-stage argon gas regulator Spare anodes & bushings Anodes of carbon graphite or tungsten	<b>VOLTAGE REQUIRED</b> 115-230
<b>New Design &amp; Features</b>	Smaller in size and weight Three-way valve to easily switch between hoses and fittings Electrical box replaced with direct electrical hook-up method Water valve relocated to front for convenient control	