

PortaMelt™

ELECTRIC ARC BUTTON REMELT FURNACE

The customizable Cianflone PortaMelt™ Electric Arc Button Remelt Furnace will melt alloys up to ~ 3600° F in less than a minute.



PRODUCT OVERVIEW

The customizable Cianflone PortaMelt™ Electric Arc Button Remelt Furnace will melt alloys up to approximately 3600° F. The sample charge can be in the form of slugs, cuttings, drillings, powders, etc. 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 and in alloy research.

The PortaMelt™ is a low-cost, low-maintenance solution that offers pure melts of powder, metallic and non-metallic buttons, compound synthesis, and material densification.

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.



SPECIFICATIONS

- Most melting times are one minute or less
- Violence of the arc provides mixing action
- Anodes available in carbon graphite and tungsten
- Water-cooled copper crucible is tiltable for easy sample removal
- Power source can be provided by the customer
- Customizable or ready to ship
- 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

Range of metals and alloys that can be remelted	METAL TYPE Aluminum Copper Steel Titanium Chromium Alloys	TEMPERATURE 1220° F 1983° F 2600° F - 2800° F 3040° F 3380° F Up to 3600° F
Copper Crucible Loads	LOAD IN GRAMS 50 72 86 100	BUTTON THICKNESS 1 1/4 1 1/2 1 5/8 1 3/4
Melting Time	Most high temperature alloys are in the order of 50-60 seconds	
Power Source	400 to 600 amps DC welder would be suitable to melt most alloys *500 amp DC welder optionally available	
Additional Requirements	ACCESSORIES Vacuum pump, 7 CMF Two-stage argon gas regulator Spare anodes & bushings Anodes of carbon graphite or tungsten	VOLTAGE REQUIRED 115-230 115-230 115
New Design & Features	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	