

# 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.



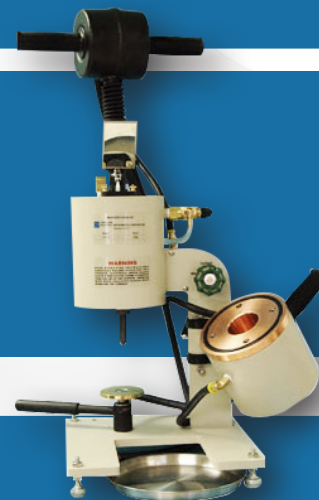
## SPECIFICATIONS

- 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><br>Aluminum<br>Copper<br>Steel<br>Titanium<br>Chromium<br>Alloys  | <b>TEMPERATURE</b><br>1220° F<br>1983° F<br>2600° F - 2800° F<br>3040° F<br>3380° F<br>Up to 3600° F |
| <b>Copper Crucible Loads</b>                           | <b>LOAD IN GRAMS</b><br>50<br>72<br>86<br>100   | <b>BUTTON DIAMETER</b><br>1-1/4"<br>1-1/2"<br>1-5/8"<br>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><br>Vacuum pump, 7 CMF<br>Two-stage argon gas regulator<br>Spare anodes & bushings<br>Anodes of carbon graphite or tungsten   | <b>VOLTAGE REQUIRED</b><br>115-230   |
| <b>New Design &amp; Features</b>                       | Smaller in size and weight<br>Three-way valve to easily switch between hoses and fittings<br>Electrical box replaced with direct electrical hook-up method<br>Water valve relocated to front for convenient control |  |