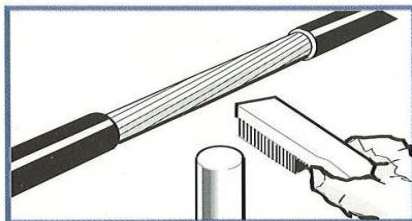


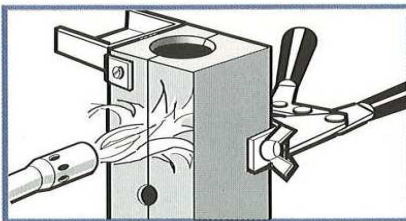
# Recommended procedure for aluminothermic weldings

## Powder: fast ignition

(ATTENTION! Before any application see in the catalogue if required distance between the surfaces to be welded (operating instructions))

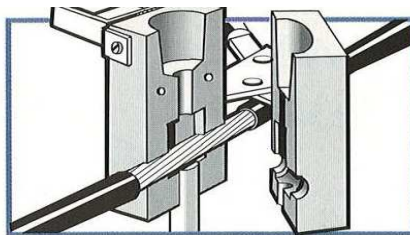


Remove insulation of conductor to a length of 15 cm when using insulated cable.  
Clean cable and the rod ends to remove all dust and oxides.  
Surfaces must be dry and free of rust or grease.

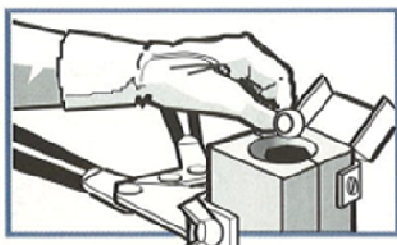


Before starting the first weld, pre-heat graphite mould with welding torch for at least 5 minutes.

This operation is very important because moisture in moulds will cause porous welds.



Open mould by separating the two arms of the handle clamps. Cable must sit on top of rod. Support moulds to keep them from sliding down rods when welding. Use lock-pliers or clamp the rods below the moulds.



Close mould properly with the handle clamp to prevent molten metal leaks.

Close tap hole at the bottom of crucible with provided metal disc.



Fill the crucible with the welding powder from the compartment with colored cap (be sure that proper cartridge size is used according to the mould tag)  
Pour 2/3 of starting powder from the compartment with black cap on welding powder



The remaining 1/3 of the starting powder, to facilitate ignition is positioned for moulds (Figure A) on mould edge under the opening in mould cover lid and for moulds (Figure B) on the mould hole and slightly outside the mould hole.



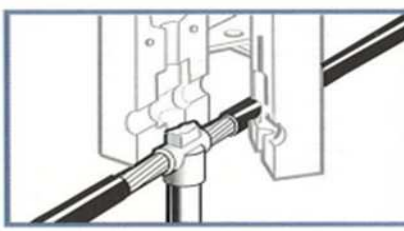
A

B



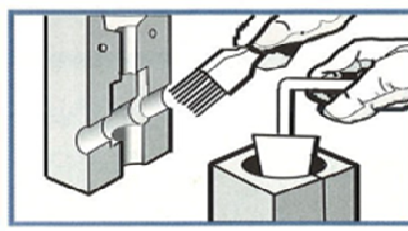
Figure A. Close mould cover lid and start reaction with the flint gun from side ways (never attempt to do it with your hand directly in front of the lid opening)

Figure B. Start reaction with the flint gun  
*It is advisable to pull away hands quickly to avoid burns and prevent damage to flint gun.*



Wait approximately one minute and open mould carefully using the handle clamps to remove the welded connection.

Care must be used during this operation to avoid breaking the mould.



Remove slag from crucible and tap hole with the mould scraper. Remove dust from weld cavity, tap hole, crucible and mould cover with the mould brush.

If the mould is still warm, you can continue the welding process without pre-heating it again. In case there is aluminum oxide (dark red) it should be easy removable with brush or low impact hammer



Attention











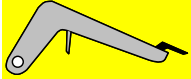
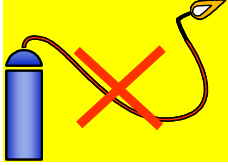



Danger

## Required outfit for personal safety for aluminothermic weldings users

As molten metal, sparks, slag and hot work surfaces are produced during aluminothermic welding, take precautionary measures to avoid burns and avoid also their contact with water and oil. The operator who will perform the aluminothermic welding must use the following outfit.



Description of Equipment	Correct	Incorrect
Labor helmet with clear protective cover for eyes and face		
Protective gloves to withstand high temperatures		
Cotton shirt with long sleeves		
Long cotton pair of trousers		
Labor leather boots		
Use ONLY the flint igniter to ignite the starting powder		
Fire extinguisher in case of execution of jobs within flammable environment.		

When using MINI MOULDS or STANDARD MOULDS REQUIRING MORE THAN ONE CARTRIDGE PER WELD and the time among welds is less than 10 min., it is highly recommended to use more than one mould alternatively to assure that mould's working temperature is maintained below 300°C (570°F), to prevent starting powder self-ignition.

**WARNING ! To prevent starting powder self-ignition and anomalous welding powder reactions NEVER attempt to use the mould if it gets hot above 300°C (570°F).**

Before the commencement of any aluminothermic welding, read carefully the users' instructions-recommended procedure.