

WWW.AQUAFLAMESYSTEMS.COM



AQUAFLAME[®]
SYSTEMS

PRECISION | POWER | PROTECTION

AQUAFLAME SYSTEMS PROVIDE SOLUTIONS FOR MICRO SOLDERING AND ACRYLIC FLAME POLISHING THROUGH A RANGE OF PRODUCTS.

The Aquaflame range are high performance gas-generating units, producing a high temperature flame – in the range 1200-3300°C. Each Aquaflame product is a reliable, low-cost, and safe operating solution to your micro welding/edge polishing needs. Employed extensively in the jewellery, dental and other

technical manufacturing industries, the Aquaflame range provides solutions for individual traders and small retailers through to larger manufacturers. Our smaller machines are suited to single users, whereas our larger machines are capable of having 2-4 users working simultaneously.

THE PERFECT TOOL FOR FLAME POLISHING

Aquaflame machines are also ideal for edge polishing of acrylic, as this method of polishing requires no other materials or compounds and can finish intricate shapes, in a single quick and easy operation.

Overall, the clean flame and precise

control of the Aquaflame Systems machines make them the ideal choice for precision soldering, micro welding and edge polishing acrylic. They are also great value and easy to use and adjust, which is perfect for small business and large manufacturers alike.

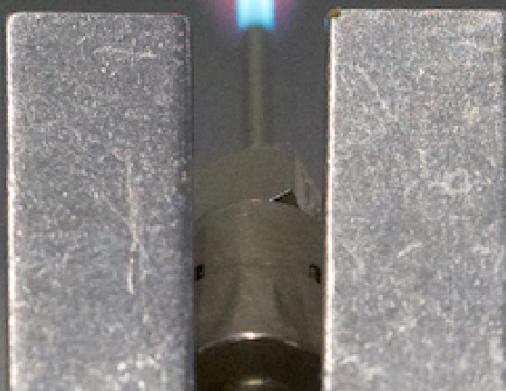


FLAME POLISHING OF ACYRLIC EDGE



SOLDERING A PLATINUM SETTING

A CLEAN FLAME



Using a standard electrical supply, hydrogen and oxygen are produced by the electrolysis of distilled water, in the correct ratio such that the hydrogen can be burnt in the oxygen, so producing a highly controllable, efficient high energy heat source. The only product of this process, other than energy, is water. A truly efficient clean and environmentally friendly process. Prior to this chemical reaction, mixed gases are passed through a gas atomiser and delivered to single or multiple torches via an output tube.

HOW A OXY-HYDROGEN FLAME WORKS

Colour | Bright Orange

Oxidising Cone

This is the coolest part of the flame (1000c - 1500c), where all the gas has burnt, and an oxidising atmosphere is created. This is due to the combustion occurring with the oxygen in the air.

This area of the flame is used to heat pieces surrounding the area to be soldered and for slow warming of the flux to stop the solder from moving.

Always use a fluxing agent to stop oxidising of the metal, which would prohibit a clean, strong soldering bond.

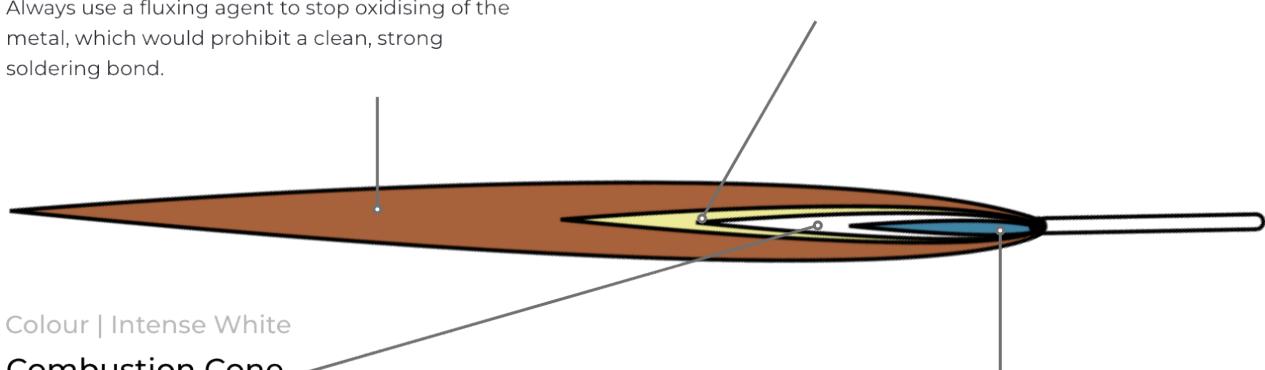
Colour | yellow Flame

Reducing Cone

This is the hottest part of the flame (1850c).

This part of the flame is where the fuel combusts, burning at approximately 1850c.

This is the ideal area for soldering metal and must be kept in this zone whilst the solder melts and brazes the pieces together.



Colour | Intense White

Combustion Cone

This area contains partially burnt gas and is an oxidising zone.

When soldering, keep the alloys away from both the mixing and combustion cones.

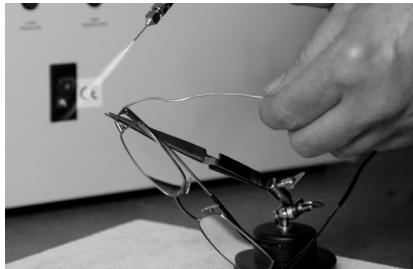
Colour | Intense Blue

Mixing Cone

This is the area where Oxyhydrogen Gas and air mix together, ready for combustion. This is a cold zone - do not work in this area.

WHAT CAN AQUAFLAME MACHINES BE USED FOR?

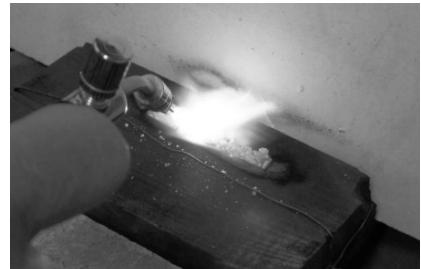
The range of AquaFlame Systems machines is very versatile, and can be used in various industries. Some of the most popular uses are:



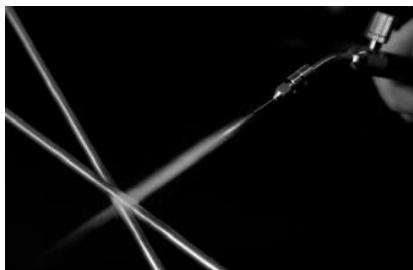
OPTICAL REPAIRS



RETIPPING A RING



PRECIOUS METAL RECYCLING



MICRO PRECISION WELDING



FLAME POLISHING ACRYLIC



HEAVY WEIGHT BANGLES



DENTAL EQUIPMENT REPAIRS



MICRO PRECISION SOLDERING



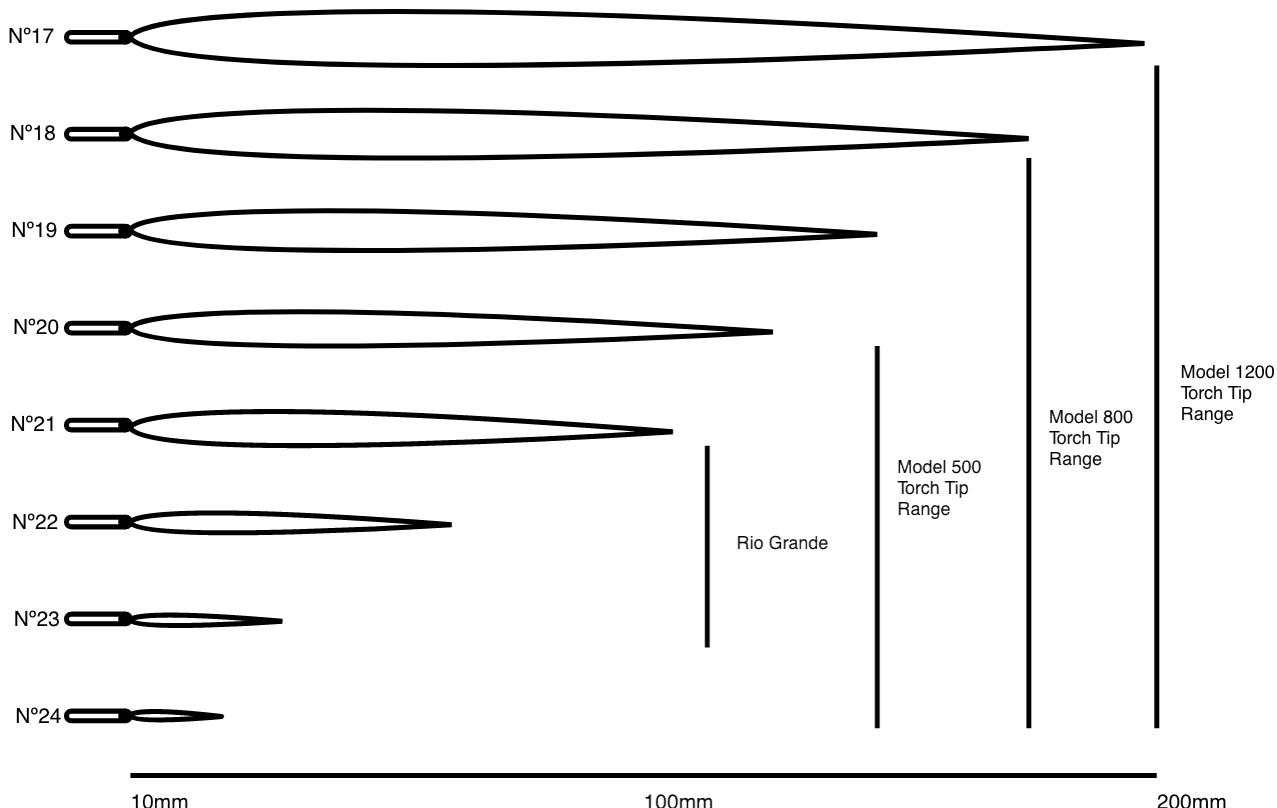
INTERNAL FLAME POLISHING

These are just some of the many uses of the AquaFlame machines. Others include fusing and working fibre optics, lost wax / wax assembly, columnar lime lights and producing thermocouple junctions – but the list could go on and on! Their clean, super-high temperature flame combined with their ease of use makes them the ideal tool for industries that require precision soldering or high temperature flame polishing.

A PRECISION TOOL

The flame created by an Aquaflame is delivered through an interchangeable range of torch tips allowing for both large and precise flames to be produced.

FLAME SIZE COMPARISON CHART



NB. the above table shows model capacity based on a single user, running at full capacity.
** Use of incorrect tips will void warranty

COMPARE MODELS



Model 500

Users



Torch Tips Range

20 – 24

Torch Tips Bore Size

0.60 – 0.31

Thickness That Can Be Polished In One Pass

5mm

Typical Polishing Times (Per Metre)

1 min

Durability Hours

4000h

Max Temp

3300°C *

Powered By Water

30 ml

Electrical Usage

0.50 kW

Gas Production

75 lt/h

Guarantee Period

2 Years

Model 800

Users



Torch Tips Range

18 – 24

Torch Tips Bore Size

0.90 – 0.31

Thickness That Can Be Polished In One Pass

10mm

Typical Polishing Times (Per Metre)

2 MIN

Durability Hours

4000h

Max Temp

3300°C *

Powered By Water

50 ml

Electrical Usage

0.80 kW

Gas Production

120 lt/h

Guarantee Period

2 Years

Model 1200

Users



Torch Tips Range

17 – 24

Torch Tips Bore Size

1.00 – 0.31

Thickness That Can Be Polished In One Pass

15mm

Typical Polishing Times (Per Metre)

3 MIN

Durability Hours

4000h

Max Temp

3300°C *

Powered By Water

100 ml

Electrical Usage

1.20 kW

Gas Production

240 lt/h

Guarantee Period

2 Years

Model 1200 PLUS

Users



Torch Tips Range

15 – 25

Torch Tips Bore Size

1.00 – 0.31

Thickness That Can Be Polished In One Pass

15mm

Typical Polishing Times (Per Metre)

3 MIN

Durability Hours

4000h

Max Temp

1850°C *

Powered By Water

150ml

Electrical Usage

1.2 kW

Gas Production

300 lt/h

Guarantee Period

2 Years

* While the Aquaflame will produce a flame up to 3300°C, we do not recommend using it without MEK. MEK gives the most stable flame at a temperature of about 1850°C.

DISTRIBUTED BY

