## PLASMA NANO COLLOID



Plasma Nano Colloid maker (PNC) is an nanomaker machine has been developed by PNF Co. PNC is utilized to produce a wide range of metallic Nano-Colloids via under water wire explosion process. Average particle size of nanoparticles produced by this method is under 100 nm .
In this method, the parameters such as colloids size; concentration of nano particles in liquid, type of surface treatment and additives can be controlled.


APPLICATIONS
The production of a wide range of nano colloids with different concentration in various media

## FUNDAMENTAL STUDIES

- Synthesis of nano engine oil additive to reduce coefficient of friction
- Synthesis of anti fungal nano silver colloids
- Synthesis of Aluminum Nitride by Aluminum wire, Heptan and hexamethylenetetramine


## 5

## Features

- Ability of producing a wide range of metallic nano-colloids which can be provided in thin wire shape.
- A wide range of liquid media including Water, Alcohol, and Glycerin and etc can be applied
- Excellent dispersion of Metallic nano particles in related liquid
- Ability of producing in laboratorial scale with different concentrations
- Environmental friendly
- High productivity


## SPECIFICATIONS

| MODEL | PNC1K | PNC8K |
| :--- | :--- | :--- |
| Output voltage | $0.5-1 \mathrm{KV}$ | 8 KV |
| Input power | 1 P 220 VAC | 1 P 220 VAC |
| Power consumption | 500 W | 2 KW |
| Shot period | Max. diameter | $1-5 \mathrm{sec}$ |
| Wire | 0.25 mm | $1-5 \mathrm{sec}$ |
| Input Wire | Exploding length | $1-5 \mathrm{~mm}$ |
| Average Particle Size | most of conductive metal |  |
| System weight | $<100 \mathrm{~nm}$ | 0.4 mm |

Nano silver colloids


Synthesis of anti fungal nano silver colloids by PNC1K with average particle size of 15 nm


Synthesis of nano engine oil additive with dispersed metallic nano powder with average size of 10-15 nm

Nitride from Aluminum wire, Heptan and hexamethylenetetramine


Synthesis of Aluminum Nitride by PNC1K with particle size range of $50-90 \mathrm{~nm}$

Industry and Market
Department
Research and Analytical
instruments
instruments
正
info@imd-instrument.com

