

## Brief Introduction

Everywhere in the world we can see a powder coating. It is widely known as electrostatic powder coating. It has been used for a long time already. In comparing with traditional liquid paints, powder coatings are more durable and wear proof. Coating doesn't fade and scratch and has high anticorrosive and anti-fouling properties.

For maximum efficiency, powder paints should be applied in dry state on a primer, and then heated up to its melting point and solidifies in the polymerization oven. Depending on dimensions and configuration of products, polymerization ovens can be bulky and expensive in use. It concerns electric power, transport expenses and waiting time. All these features became a restraining factor in development of powder coating industry.

## Innovative Device

SeaHarmony Company represents to your attention a new unique technology.

Our Engineers with fifteen year's experience in this industry have done their best to bring production of new portable system of polymeric covering into masses.

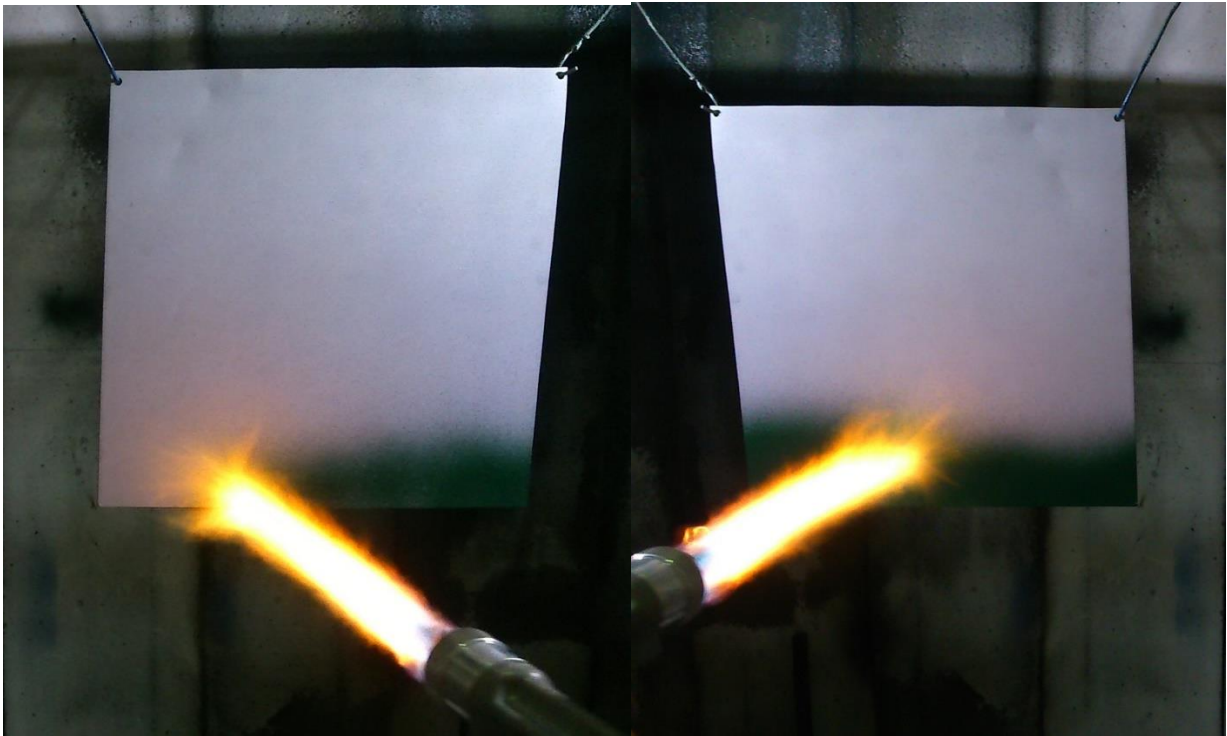
The technology with using the portable system withdraws the process of polymeric materials applying beyond industrial areas. It also allows to get away from such processes as dismantling and transportation of coated products.

This device has been specifically designed to give more opportunities for applying coatings. It can be used on different types of metal, on plastic, cement, fiberglass, carton(cardboard) and etc.

## Unique characteristics:

- low operational cost (the device works at compressed air and propane);
- low maintenance cost;

- minimum of wearing out details;
- absence of volatile solvents;
- UV resistance;
- equipment is easy to clean;
- opportunity to make coating everywhere without dismantle;
- flexibility of technology and mobility of equipment;
- easy and simplicity maintenance;
- possibility to use the majority of polymeric materials;
- variety of surfaces: metal, glass, PVC, wood, concrete etc..



### Functional purposes

Using of the mobile device – is the perspective alternative to a classical method of coating. Thermoplastic paints and their hybrids are highly used in this technology.

Taking into account low weight and dimensions of device, it is possible to cover large-size and fixed details, such as columns, pipelines, fences etc.

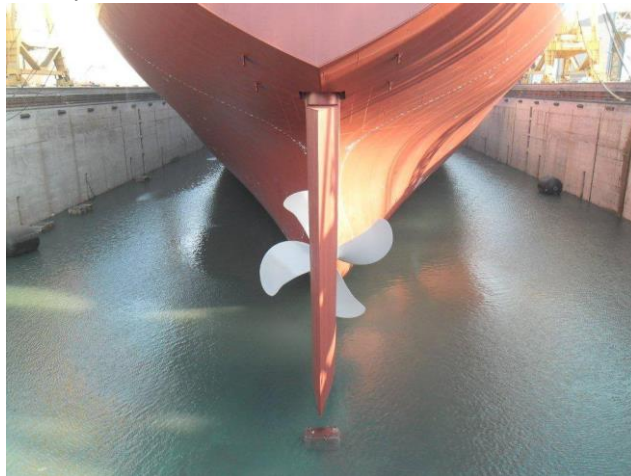
The main function of such coating is anticorrosive protection.

This technology is highly used in the following branches:

- coating of pipelines inside and outside (depending of length and diameter) ;



- coating of underwater hull of ships (this chapter is currently under development)



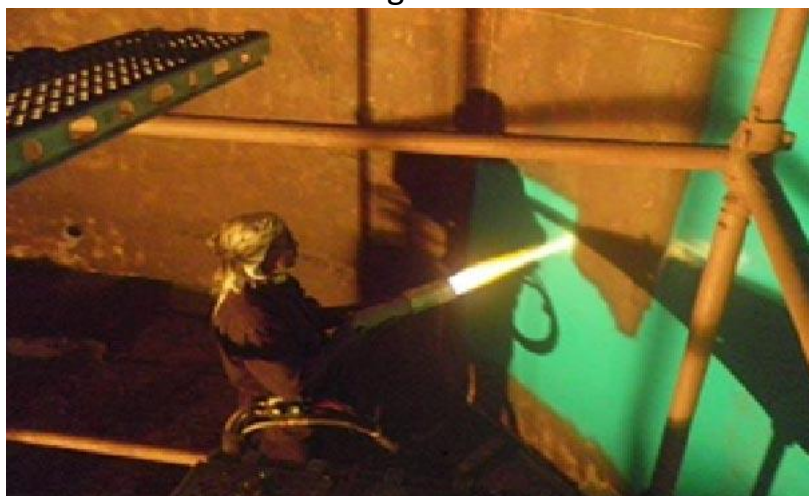
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- anti cavitation propeller coating ;



- coating of deck equipment (Cranes, pumps, winches and etc)
- coating of Engine Room equipment (Pumps, sea chests)



- ballast tanks coating



- coating of constructions made from wood, cement, glass and metal;



- coverings for food industry;
- washing and non-sliding coverings;
- Antibacterial and anti-fungal coverings.



The general view and basic elements are presented on below pic.



1. Control panel
2. Fluid tank
3. Injector
4. Spray gun
5. Pressure dumping filter

For using this device, necessary to have:

1. Air compressor (capacity 600 l/min)
2. Gas cylinder

## Technical characteristics

The maximum powder productivity is no more than	kg/h	3-3,5
Coating productivity (layer thickness 250 micron)	m <sup>2</sup> /h	8-10
Sizes of powder particles	micron	10-300
Possible thickness of covering	mm	0,15-2
Capacity of consumable tank	l	10
Coefficient of consumable material		0,95
Consumption of propane-butane	m <sup>3</sup> /h	1,2
Consumption of compressed air	m <sup>3</sup> /h	36
Working pressure of propane-butane	bars	1-1,5
Working pressure of compressed air	bars	3-4
Weight of device	kg	10
Overall dimensions (D*W*H)	m	0,2×0,3×0,3