

## ABB paint application equipment upgrades Save up to 20% on paint and associated maintenance costs



Is your existing paint application equipment costing you money?  
Are you paying for expensive paint that does not end up on the part?

ABB's new high efficiency paint atomizer (RB1000-EXT) can help you solve both these problems; and also keep your paint booth clean and reduce your overall maintenance costs.

### Reduced paint consumption

With ABB's new paint atomizer, RB1000-EXT for waterborne paint, you can save up to 20% on paint consumption resulting in lower operating cost, improved VOC emission and less booth cleaning.

The increased transfer efficiency is achieved by the optimized position of the electrodes, which maximizes the high voltage efficiency for the paint particles.

The high voltage charge for shaping the air ring ionizes the air, which also improves transfer efficiency. As a result of the double shaping air system and variable rotation speed the RB1000-EXT has pattern control which dramatically reduces the overspray rate. In addition the new design of shaping air ring and bell cup results in a more stable spray pattern.

### Reduced atomizer maintenance

The new patented, contamination proof system, allow you to reduce your paint equipment cleaning frequency. An innovative new seal design extends the interval for valve maintenance by 400%, while the modular valve design reduces seal replacement time to 5 minutes.

### Increased performance

As a result of the increased bell rotation speed and higher paint flow rate there is also a wider operation window for colour matching and smooth surfaces.

## Potential saving by upgrading

### 20% paint saving

- Reduced running cost and VOC emission
- Less booth cleaning
- 50% less cleaning time
- Cleaning frequency reduced by 50% thanks to new contamination proof system

### 60% less valve maintenance

- Time to replace the valves is reduced from 20 to 5 minutes.
- Seal design has changed therefore the maintenance interval for valves is extended by a factor 4
- No heater needed against dew condensation

### 60% higher performance 80,000rpm x 700cc/min

- Wider operation window for colour matching & smooth surface

## Return on investment in less than one year

A recent upgrade to a Japanese car manufacturer facility has resulted in a payback time of less than one year.

The overall investment\* to upgrade their paint facility was \$1,120,000. The facility is painting 230,000 cars/year with 8 atomizers in primer and 4 atomizers for the first layer basecoat. The average paint cost is \$12/litre.

A payback period of 9 months was achieved due to the following savings:

### Paint consumption per year

Primer savings \$764,928

Basecoat saving \$818,381

**Total paint savings per year = \$1,583,209**

### Additional savings

Cleaning time per year: Saving \$16,200

Maintenance cost per year: Saving \$25,816

\*includes atomizers, spare-parts and installation.

## Equipment requirements for upgrades

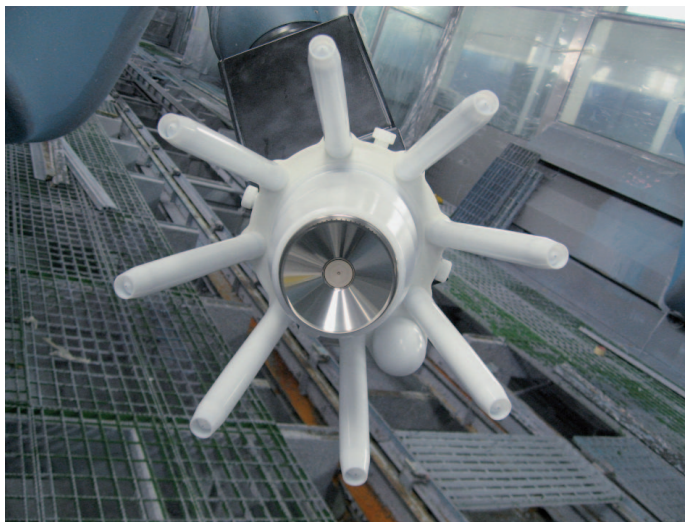
As ABB has its own application and high voltage controller we can install the RB1000-EXT on all types of paint robot or side top machine as long as they can carry a weight of 10 kg.

In case of an ABB installation the system has to be equipped with;

- S4P, S4P+ or IRC5P controller
- IRB 5400 or IRB 5500 manipulator

Upgrade components for the G1 copes atomiser system

- New atomizer (RB1000-EXT),
- New bell cup and shaping air ring required
- Fibre Optic cable
- Three additional I/O's for air lines (shaping air, exhaust purge and shaft purge)



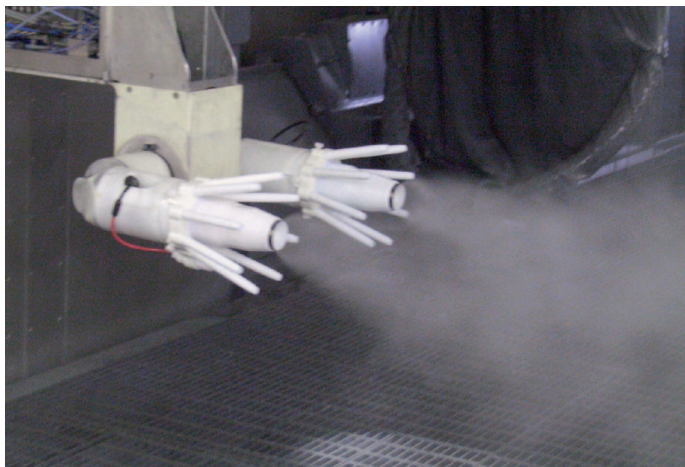
## Comparison with ABB competitors

In a comparison test with the same spray conditions the RB1000-EXT shows 20% more film thickness. Tests are performed in an independent laboratory. Results are available upon request.

In case of non ABB paint application solution, the saving is depending on the current installation and can be verified by an ABB expert

## Atomizer factory

All ABB atomizers are manufactured in Shimada, Japan to the highest quality standards. The factory is certified in ISO9001 and ISO14001.



## Facts about ABB Robotics services

- Present in 53 countries in more than 100 locations
- 1150 employees

## Our vision of service

ABB Robotic service wants to be the reason why customers and partners continue to buy from ABB. We will provide world-class services locally, wherever there is an installed base of ABB robots.