

## Air Control Unit (ACU) Upgrade to ACU

The ABB Air Control Unit (ACU) is a high-performing and cost-efficient air flow controller for paint applications that is easy to integrate into new and existing installations. This extremely accurate and reliable unit controls air flow, enabling paint atomizers an incredibly fast response time, at an even lower working pressure than existing solutions.

Lightweight and compact, the ACU can be installed directly on the paint robot arm of both IRB 5400 and IRB 5500. As compared to the PPRU which is mounted inside the pneumatic cabinet on the IRB 5500, situated outside the spray booth. The new ACU design gives you faster response time plus stable and uniform air flow.

Optimize your paint process with the ACU to get access to all the benefits and significant paint- and energy savings.

### Benefits include

Paint savings:

- Minimized overspray
- Improved paint quality result

Energy savings:

- Lower air pressure

Productivity improvement:

- Reduced stop time
- Increased throughput



### Paint savings with IPS

With the new ACU's millisecond response time you can now take full advantage of ABB's IPS system, designed to save paint. High acceleration painting robots combined with fast process regulation provide optimum use of paint material. In short, IPS reduces your cost to make you more profitable.

### Quick and easy replacement

The ACU replaces MAC-kit PPRU units on S4P, S4P+, and IRC5P paint robots. The replacement may require some adjustments for older generations. The ACU is a plug-and-play solution with pre-calibrated settings, easily fine-tuned or customized, ensuring an extremely accurate and stable overall performance.

## Paint savings

Minimized overspray:

- The fast and accurate ACU allows you to apply the brush trig closer to the object you are painting.

Improved paint quality result:

- The extremely accurate, stable and uniform air flow plus enhanced overall performance allows you to optimize your brushes better. With the goal always being 100% paint quality to avoid additional work.

Optimized paint programs and brushes, together with reduced overspray, leads to a cleaner spray booth and lower cost in paint waste destruction. It also improves compliance with the Environmental Protection Act (EPA).

## Energy savings

Lower air pressure:

- Reduced air pressure requirements, from 8 to 6 bar, mean significant energy savings. Calculations can be offered on request.

## Productivity improvements

Reduced stop times:

- Thanks to its high accuracy and reliability, the ACU requires minimum maintenance. Easy to replace, without needing any calibration with its built-in close loop regulation, the ACU means less trouble and more production time.

Increased throughput:

- Optimizing programs save paint, by reducing re-paint needs to a minimum, ensuring you get the result you need right away for a higher throughput.

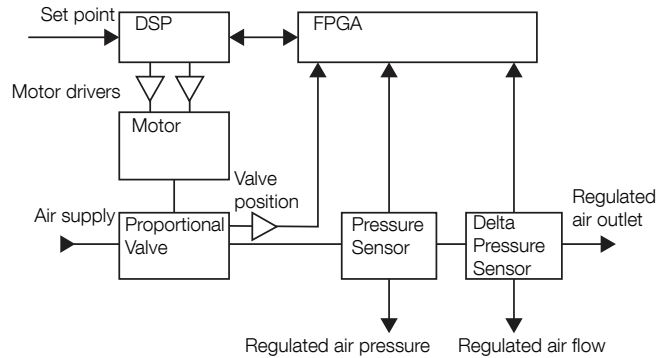
Use dedicated ROI's to calculate your savings on each of the improvements above.

## Other benefits

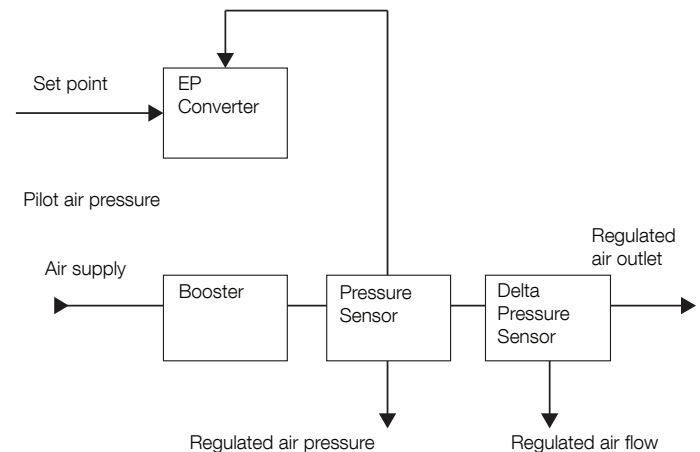
- Mounted in the rear part of IRB 5500, near the atomizer
- EX-encapsulation
- Lightweight and compact, can be mounted on all robots
- Less internal pressure drop
- Built-in close loop regulation
- Modular plug-and-play design, easy and quick to install
- Supports ABB's StayOn™ and NoPatch™ concept
- Perfect for pattern control in Bell atomizers
- Replaces all previous obsolete control units

## Regulation principle ACU versus PPRU

### ACU



### PPRU



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