The multi purpose painting robot

TR-5000 is a fully electrical robot system from ABB AS, Robotics. In this robot, we have combined our long experience in building robots for surface treatment applications with many years of experience by ABB in building electrical robots. The result is an electrical robot especially adapted for surface treatment, where dynamic accuracy, extreme working envelope and high speed are combined with paint process control, and all necessary functions that have kept ABB AS, Robotics in the leading position in the field of top quality finishing.

The robot consists of a 6 axes manipulator, and an electronic control system. The control system provides a wide range of control functions, such as linear tool point motion, constant fan tip speed, extensive program editing possibilities, etc.

The TR-5000 robot generation utilises AC servo drives and computerised control, including special features for painting applications, conveyor tracking, dynamic I/O and analogue spraygun control. The control system can be integrated with superior control systems for a complete paint station involving a number of robots.

The robot is no longer being manufactured, and is replaced by the IRB 5400 and IRB 500 families of painting robots.

Flexibility
The ABB TR-5000 allows flexible robot programming and robot configuration. The robot is equipped with either Flexi-wrist or Hollow-wrist. A wide variety of single and dual spray gun mountings are available that can incorporate such features as, Integrated A-B colour changer, integrated 2K mixer, integrated dump valve.

Quality
ABB constantly strives to develop solutions that optimise the quality of our customers products. As a result ABB’s robots are employed in a wide variety of finishing operations with demanding quality requirements.

ABB’s accurate spray gun triggering system, built-in spray-gun delay compensation, conveyor tracking, patented hollow wrist design with integrated paint and air hoses, fully balanced manipulator throughout the whole working envelope all contribute to the achievement of high quality low cost manufacturing.

Paint Savings
ABB’s unique Integrated Paint System (IPS) can help you achieve considerable paint savings. Both open and closed loop paint regulation systems allow full control of spray gun atomising air, fan-widths and the paint-flow through the spray gun.
**CP – Continuous Path Programming**

Fast and efficient programming can be achieved by utilising the CP programming function. CP programming is performed by manually moving the robot and simultaneously recording the robot motions while painting the first object.

The CP Programming utility is a very fast and efficient way of programming new robot motions. Having constantly new products in short series is no longer a disadvantage.