

Paint specification for Rotork actuators and gearboxes

Standard IQ and IQT range paint finish Sizes 1-3 and CVA all sizes

After machining, all castings are cleaned by dipping into an acid etch solution and then subsequently rinsed in a cold water rinse. Aluminium castings are then dipped in Gardobond® C4725 to provide all surfaces with a high corrosion resistance combined with excellent paint bonding properties. Cast Iron and steel components are immersed into a zinc phosphate solution for approximately 10 minutes and then cold water rinsed. All castings are then preheated to 100°C for approximately 10 to 15 minutes to remove all moisture prior to powder coating. The polyester powder coating is applied by electrostatic means to a nominal thickness of 75 microns. All castings are then cured at 200°C (Core temperature) for approximately 20 minutes.

Sizes 4 and 5 Preparation

1. Iron castings are fettled to present a smooth surface after which they are dipped, before machining, in a synthetic red oxide primer to seal all surfaces.
2. Aluminium castings are treated, after machining, by dipping in Gardobond® C4725. This process gives all surfaces high corrosion resistance combined with excellent paint bonding properties.
3. Assembled actuators are then suitably masked and passed on a conveyor through an aqueous degreasing plant operating at 70°C to the spraying stage.

The spraying stage

Preheated paint is applied as follows:

Undercoat

Make: International
Type: Anti-corrosion primer
Ref no: International 306
Min Film Thickness: 2.00 mils (50.8 microns)
Application: Air assisted airless electrostatic system

Top coat

Make: International
Type: Fast air drying alkyd Ref no. 222 and 233
Colour: Castings - metallic silver BS4800 00-A-05, Handwheel and hand/auto lever – black RAL 9005
Min Film Thickness: 1.00 mils (25.4 microns)

Application: Air assisted airless electrostatic system

Top coat

Drying time: 12 hours to hard dry Film
Thickness: 3 mils (76.2 microns).

Standard A range actuators and gear-box paint finish

Preparation

1. Iron castings are fettled to present a smooth surface after which they are dipped, before machining, in a synthetic red oxide primer to seal all surfaces.
2. Aluminium castings are treated, after machining, by dipping in Gardobond® C4725. This process gives all surfaces high corrosion resistance combined with excellent paint bonding properties.
3. Assembled actuators are then suitably masked and passed on a conveyor through an aqueous degreasing plant operating at 70°C to the spraying stage.

The spraying stage

Preheated paint is applied as follows:

Undercoat

Make: International
Type: Anti-corrosion primer
Ref no: International 306
Min Film Thickness: 2.00 mils (50.8 microns)
Application: Air assisted airless electrostatic system.

Top coat

Make: International
Type: Fast air drying alkyd Ref no: 222 and 223
Colour: Dark Grey RAL 7011
Min Film Thickness: 1.00 (25.4 microns)
Application: Air assisted airless electrostatic system.
Drying time: 12 hours to hard dry
Film Thickness: 3 mils (76.2 microns).

Standard Q range paint finish

After machining all castings are cleaned by dipping into an acid etch solution and then subsequently rinsed in a cold water rinse. Aluminium castings are then treated with Alugold to provide all surfaces with a high corrosion resistance combined with excellent paint bonding properties. Cast Iron and steel components are immersed into a zinc phosphate solution for approximately 10 minutes and then cold water rinsed. All castings are then preheated to 120°C for approximately 10 to 15 minutes to remove all moisture prior to powder coating.

The polyester powder coating is applied by electrostatic means to a nominal thickness of 75 microns. All castings are then cured at 200°C (core temperature) for approximately 20 minutes.

Corrosion testing

All paint finishes have been subjected to an accelerated, cyclic corrosion test of 1000 hours duration at elevated temperatures with a combination of salt spray, drying and humidity cycles.



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Published and produced in the UK by Rotork Controls Limited. SSSPB0610