



Artic, a Romanian company producing freezers was looking for an automatic solution to paint over 27 types of parts with 2 different colors and recipes. The Arkzo Nobel paint used, is a 2 component finishing paint, but has to be thinned to be applied correctly on a plastic surface with a 25µm film.

The ratio recommended by the producer was 7:1 for paint with hardener, and 2:1 if you take (A+B):C, volume C being larger than B. Arctic used to apply this with manual gun with 250cc/min output and high overspray.

One recipe for (A+B):C

The request was for a complete automated paint line. If 2ks station would be implemented component A and C (thinner) had to be mixed manually first to get the right viscosity and after that to mix with hardener. In this situation ratio will be 10:1 and for low exit gun necessary component B will be very hard to measure and deliver a good mix. For this the distributor SC Romcrete Echipamente SRL has suggested a 3 component automated installation.

The implemented solution has a self-learning robot fed by a 3 component paint line working with conveyer and cure oven. The 3KS station works in low pressure with Graco Triton pumps for all components, even for the cleaning solvent.

A conventional paint spray gun for high production and good atomization, with flow up to 150cc/min for the robot's full speed was implemented. For such low flow the smallest quantity in the recipes, component B (hardener) has low flow and for this a Coriolis 1/8 high resolution flow meter was used.

The result was one recipe for colour A:B at a ratio of 7:1 and one for (A+B):C at a ratio of 2:1.

To avoid pulsation at the gun during pump change-over to component C, a fluid regulator of the mixed product is placed on the robot arms near the gun after 5 m hose.

Mixed component viscosity was tested and the results were as expected: no errors in the mixing process and the ratio had a tolerance lower than 5%.

END USER

SC Arctic SRL company,
www.arctic.ro part of
http://www.arcelik.com.tr/
producing Beko freezers.

Industry market sector

Long term consumer goods.

CONFIGURATION

APPLICATION

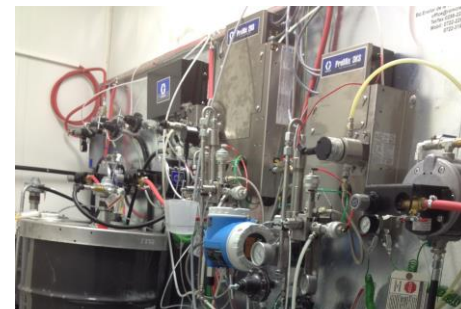
Finishing plastic decorative parts.

Material specifications

2ks Acrylic paint from Arkzo Nobel

GRACO Equipment

ProMix 3KS automated station



GRACO Distributor

SC Romcrete Echipamente SRL
Eroilor de la Tisa Nr. 79 Timisoara
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