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Winter Issue - June, 2011

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- More New Robots Launched!
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RA & Dulux Perform Awards Hat-trick...



Our thanks to these awards-bodies for their recognition in 2011 and for the glittering awards dinners they mounted:

Endeavour Awards (Manufacturer's Monthly magazine) - National awards celebrating manufacturing excellence.

Category: *Technology Application of the Year*

Result: *Winner - 1st Place*

Zenith Awards (PACE - Process & Control Engineering magazine) - for leadership in engineering, technological excellence and innovation.

Category: *Manufacturing & Automotive*

Result: *Winner - 1st Place*

Smart Awards (Supply Chain & Logistics Associations: APICS, LAA, CILTA, CIPS, SCLAA)

Category: *Excellence in Manufacturing Supply Chains*

Result: *Winner - 1st Place*

...and the awards-year is only half over! Stay tuned.



From above-left: David King (RA), Daniel Lanza and Gavan Dowal (DuluxGroup) accept the Endeavour Award.



Above-left: Colin Wells (Director, RA) accepts the Smart award on behalf of RA & DuluxGroup.

Robo-Mixing a recipe for awards...

CLIENT: DuluxGroup

CHALLENGE: Mixing the various powder ingredients of a customised powder-coat product was a labour-intensive process requiring staff to handle and decant loose, heavy bags of powders, in different sizes weighing 20 to 25kg each.

Additionally, the process results in a hazardous work environment saturated with fine powder dust that hangs in the air, potentially to combustible intensities. Other associated hazards include respiratory, dusty flooring, and the need for uncomfortable safety-wear.

SOLUTION: DuluxGroup proactively sought a solution and partnered with RA to develop an automated system that could also concentrate their custom production in one Centralised Make-up Facility. The heart of this system consists of...

- The Major Materials Robotic Loading System
- The Minor Materials Robotic Loading System
- SCADA system to govern the total solution and take each unique batch order via a database management system connected to Dulux Group's Management system and staff operated by HMI touch-screens.

With the production schedule assigned, the system checks each recipe against the real-time stock of each ingredient powder stored in either dispensing hoppers or as sacks on pallets and then outputs a loading plan to the 3 robots. These robots are enhanced with extra body and sealing protection to safely work in a combustible "Zone 21" hazardous environment.



The Major Materials Fetching Robot glides down the pallet aisles collecting a list of ingredient powder sacks.

MAIN EQUIPMENT:

- 3x Motoman HP165 Robots (extended-reach version with 100kg payload).
- 2x 21 metre servo-tracks with robot mounts.
- RA-designed end-of-arm tooling.
- SCADA & Database management systems interfaced with Client's Management System.
- HMI system (touch-screen operation).

These 3 Robotic Chefs now set about their tasks to stock, handle, pour, mix ...or more basically to cook up a perfect powder-coating product to order! Racing back and forth along two 21 metre long tracks, the tasks of these robots include:

- Fetching sacks of ingredient powder from pallet racks.
- Opening and decanting the powder from each into 130 different storage hoppers, then disposing empty sacks into a compacting machine for recycling.
- Tending the 130 ingredient hoppers between 3 mixing machines.
- Fetching empty pails, weighing & delivering full pails of the final product-mix.
- Replenishing the powder stocks contained in the 130 mixing hoppers. Ready again for the next custom order!

BENEFITS:

- *Increased staff safety.*
- *Increased product consistency & quality.*
- *Increased productivity.*
- *Capability for smaller custom batch-sizes.*
- *Redeployment of staff.*
- *Reduction in staff injuries & associated costs.*
- *Reduced losses to production time.*
- *Reduced batch-errors & waste.*

New from MOTOMAN...

MPP3 High-speed picking robot: The **MOTOMAN MPP3** 4-axis high-speed robot with parallel kinematic system combines the speed of the delta design with a high-payload capacity and a large working range.

Due to the high torque of the fourth axis (the so-called wrist axis) the **MOTOMAN MPP3** moves payloads of up to 3 kg at unprecedented speeds.

For the most demanding picking tasks, the **MPP3** rounds out the **MOTOMAN** product range from Yaskawa. It was developed for the fields of order picking, high-speed picking and other handling applications.

Key benefits:

- High speed up to 233 cycles/minute increases productivity
- High payload up to 3 kg increases flexibility
- Compact top mounted design with large working envelope saves floor space
- Integrated vision & conveyor tracking which is easy to use
- Hygienic design for wash down applications
- Best in class performance

MOTOMAN robots are exclusively represented by **RA** throughout Australia & NZ. Contact us for full information.



The **MOTOMAN MPP3** delta robot.

Check out the **MPP3** in action on our **You Tube** channel below (or directly visit www.youtube.com/user/RoboticAutomationPL)

News on Forklift Incidents Alarming...

Follow these links to read the full **articles**...

["Forklift Accident Costs \\$193,000 + Legal Costs"](#)

- 23/06/2011

["Investigation: Worker Dies in Forklift Incident"](#)

- 02/06/2011

["Woolworths reviews safety following forklift incident"](#)

- 05/05/2011

["Forklift Violations Earn Swire \\$60k Fine"](#) - 13/07/2010

["Hit by a Forklift - Serious Leg Injuries"](#) - 15/09/2009

...and more alarming new forklift incident **videos**...

["Broke-Stock Mountain"](#) - 23/04/2011

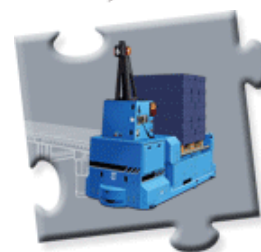
["Unbelievably Foolhardy Behaviour"](#) - 01/12/2009

["Racking, Product & Production Time Lost"](#) - 06/11/2009

["\\$150k of Liquor Stocks Destroyed by Forklift"](#) - 02/11/2009

Help stop the damage! Regularly review your Forklift Operational Safety & Compliance Plans and contact **RA** if you would like us to review the potential for **RAGVs** at your site - a safely automated alternative.

RA-GV Robotic Automation P/L
Guided Vehicles



A new **RAGV** installation at **AMCOR Sydney** which also features robotic palletising & auto pallet wrapping.

More RA Videos - Now Showing

RA's application videos on www.YouTube.com continue to grow and highlight our automation experience of the last 23+ years.

If a picture paints a thousand words ...then a video is a whole novel!

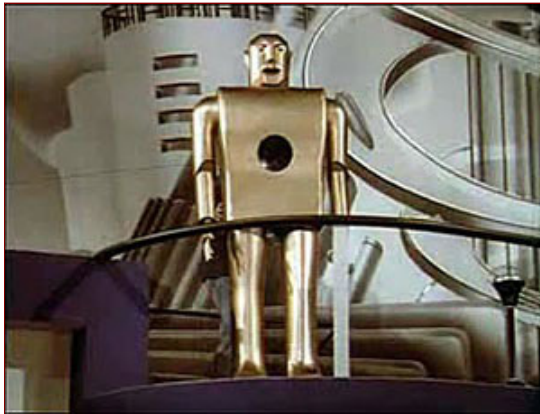
(Direct link www.youtube.com/user/RoboticAutomationPL)



Are you missing out?

Have you had an audit of your site's automation potential? Our team is always happy to advise you - call us on **1300 552 333** to enquire or simply [reply](#) to this email.

Is this the first MOTOMAN robot?



...He Smokes?!

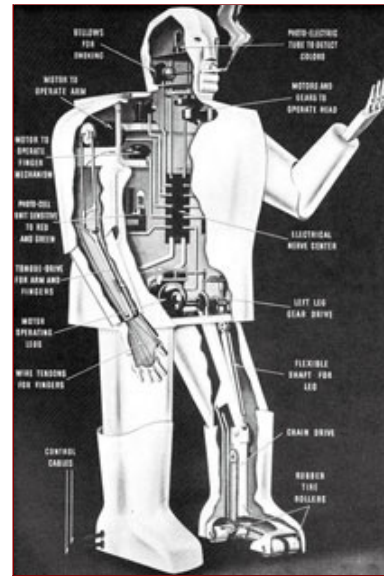
Meet "**ELEKTRO the MOTO-MAN**" as seen here at the 1939 World's Fair in New York! We also have some quaint old footage of him on our *You Tube* channel above (or directly visit www.youtube.com/user/RoboticAutomationPL)

At seven feet tall, he could walk by voice command, speak about 700 words (using an internal 78-rpm record player!), smoke cigarettes(?!), blow up balloons, and move his head and arms. Built by Westinghouse, Elektro's body consisted of a steel gear, cam and motor skeleton covered by an aluminium skin. His photoelectric "eyes" could distinguish red and green light.

So popular an exhibit, Elektro reappeared at the World's Fair in 1940, with "Sparko", a robot dog that could bark, sit, and beg. Elektro also appeared in several films, including as "Thinko the robot", in *Sex Kittens Go to College* (1960), which starred Mamie Van Doren and Tuesday Weld.

In 1992, the dance band *Meat Beat Manifesto* produced the song "Original Control (Version 2)" which prominently featured snippets of Elektro's monologues, quoting lines such as "I am Elektro" and "My brain is bigger than yours".

Ironically, it's only in recent years that robotics companies (led by **MOTOMAN**) have begun to develop more humanoid, dual-arm robots again, such as the **SDA series!**



A peek inside "ELEKTRO The MOTO-MAN"

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