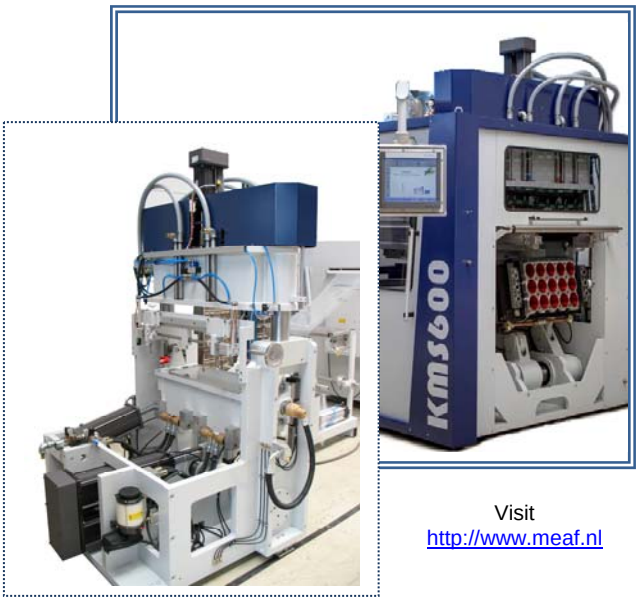
Application Note

MEAF Machinery BV – Thermoforming

Application Challenge: Providing higher possible mould forces and a smoother motion profile along with long service life was the goal for MEAF Machinery while designing their new KSM600 high capacity thermoforming machine. This machine, utilizing air and plug-assisted forming, enables very accurate control of the wall thickness of the plastic to form ribs and contours, resulting in a final stable plastic product.



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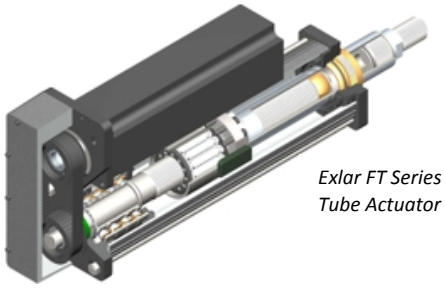
http://www.meaf.nl

Exlar Solution: Exlar's roller screw actuator technology was chosen over less capable linear motion solutions for this application. Ball screw average life expectancy would not meet the service requirements of the KSM600 machine. Pneumatic cylinders could not produce a sufficiently high force and stiffness for pressing and rotating. By choosing two Exlar FT60 actuators and one GSX60 integrated actuator, MEAF replaced the pneumatic plug drive and the cam system for opening and closing the mould. Not only were the objectives of long life and increased load met, but an electric cam profile provided by the Exlar actuators resulted in a smoother motion profile.

Exlar Products: FT60 Force tube actuators and GSX60 integrated actuators were used to replace the cam system.



Exlar FT Series Force Tube Actuator

Exlar GSX Series Integrated Servo Motor/Linear Actuator

The Exlar Linear Actuator Advantage with Planetary Roller Screw Technology

- Millions of cycles without re-lubrication or maintenance
- Roller screws offer 15 times longer life than ball screws
- Less noise than other motion technologies
- Smooth motion
- Less energy consumption than fluid power with electric actuation
- Accurate and repeatable positioning
- Wide variety of mounting styles
- High cycle rates
- Multiple stroke lengths

Optimize your application with Exlar actuators. Visit www.exlar.com for complete product information or call us at 952-368-3434. You may also email us at info@exlar.com.

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