

# Innovative actuation technology

Combines the benefits of hydraulics and electro-mechanical while eliminating their challenges



## About us

With Kyntronics and the push for Sustainability (going green), Rockwell Automation now has a robust actuation solution to replace conventional hydraulic systems. Kyntronics and Rockwell Automation worked together to develop an Add On Instruction (with example code) to make it easy to meet your actuation needs.

Kyntronics is an innovative, engineering driven company dedicated to solving your actuation requirements. The SHA (Smart-Hydraulic Actuator) can accurately move forces up to 85,000lbf and can be paralleled (synchronized) to achieve larger load requirements. The SHA combines the benefits of both the EMA (Electro-Mechanical Actuator) and Conventional Hydraulics (HPU) while solving the challenges of both technologies. The SHA is a sealed hydraulic unit that utilizes the Allen-Bradley servo motor connected to our pump that moves the fluid precisely controlling the piston. There are no hoses & no environmental leaks. The SHA is the most efficient actuation solution available today.

EMAs have lower life expectations with the continuous mechanical wear and get very expensive with the larger loads. EMAs fail with impact & shock loads while the SHA has no issues. The SHA is IP65 as standard, the EMAs are IP challenged while in motion and is costly to implement robust IP solutions.

Conventional Hydraulics is challenged with environmental issues including leaks and hazards. The conventional hydraulic power units run continuously and are noisy. The SHA is totally sealed, with no hoses and runs only when commanded (Power on Demand). The SHA is quiet, takes up much less space and requires minimal maintenance. Connectivity and control get expensive with conventional hydraulics.

Kyntronics developed an extensive AOI that is simple to integrate into a ControlLogix® platform. The AOI provides the user the capability to setup position control or position with force limiting or a dedicated force control solution. The SHA provides force control with the simple addition of a pressure sensor ( $F=A*PSI$ ). The control seamlessly moves from position to force and back which is ideal for many applications like press control. The AOI can be easily used to take advantage of the powerful FactoryTalk® software, synchronizing multiple actuators together as desired.

The SHA has been successfully integrated with Rockwell Automation solutions in many applications including Presses, Test, Stamping, Piercing, Bending and many more with most replacing conventional hydraulic systems. With the growing desire to go electric, Rockwell Automation and the SHA are the ideal choice.

## Product category

Kyntronics & Rockwell Automation combine to provide an ideal Sustainability actuation solution to replace Hydraulic systems. Kyntronics has standard products ranging up to 85,000lbf that can also be paralleled to further increase the desired load capability.

No Leaks, Power on Demand (Energy Savings), Eliminates the need to manage the large oil barrels, Saves Time and Money, Safer as well as a Quieter solution for the personnel.



# Questions?

## Regional support and contact information

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