Injection Molding & Hot Runner Actuators

M640

ENGINEERED TO MOVE

Hydraulic actuation has been the standard for motion control in injection molding applications for generations, and yet every day more plastics manufacturers are turning to electric actuation for the greater speed, precision, energy efficiency, and other benefits offered by this innovative solution. Using advanced roller screw technology, Diakont electric actuators supply the high force required for motion control in injection molding processes, including core pull, hot runner direct nozzle and multi valve control, ejection, ram, and clamping, while entirely eliminating many of the problems associated with hydraulics. With no hydraulic fluid needed, electric actuation puts an end to internal leakage and frictional losses, as well as reducing the need for cooling requirements, resulting in significant increases to the overall efficiency of your toggle injection and clamping machinery.





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Advantages and Benefits

Diakont EMAs incorporate progressive technology, including precisely machined roller screws and high-force permanent magnet synchronous motors (PMSMs). These components are integrated into a single unit, thus providing exceptional performance in a compact footprint. Diakont actuators provide the following advantages:

- 1. High force in a compact design due to precisely-machined roller screws with optimal transfer function, compact high-speed PMSM motors, and embedded anti-rotation, which reduces requirements for additional space.
- 2. Best-in-class Lifetime (>10,000,000 cycles), thanks to Diakont's advanced roller screw technology
- 3. High temperature tolerance up to 85°C
- 4. Quickly and easily retask the same actuator to complete multiple projects ("plug and play" capability)

Applications

- Hot Runner Direct Nozzle Control and Multi-Valve Control
- Ejection
- Core Pull
- Co-Injection
- Ram
- Clamping
- Blowing Rod and Die-Head (Blow Molding)

Easy Maintenance

Infrequent relubrication is the only required maintenance. Diakont actuators are equipped with easily accessible lubrication ports (patent pending) to facilitate scheduled maintenance without requiring disassembly, recalibration, or removal from the customer's machinery.

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Standard Models

Application	Model	Peak force, lbf	Continuous Force, lbf	Speed, in/s	Size (mm)	Length, in
Hot Runners – Direct Nozzle Control	DA82	1102	899	3.3	3.2"x3.2" (82x82)	5.5
Hot Runners – Multi Valve Control	DA67	1754	1349	4.9	2.6"x2.6" (67x67)	12.1
	DA99-12	4282	2163	4.9	3.9"x3.9" (99x99)	13.0
Ejection, Core Pull, Co-Injection, Ram, Clamping	DA99-35	4946	2653	9.8	3.9"x3.9" (99x99)	13.0
	DA140-312	5081	2545	19.7	5.5"x5.5" (140X140)	19.8
	DA140-25	9824	4915	7.9	5.5"x5.5" (140X140)	17.4
	DA140-32	13196	9283	3.9	5.5"x5.5" (140X140)	19.8

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