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.
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)

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.

### Advantages and Benefits

### 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

### Standard Models

<table>
<thead>
<tr>
<th>Application</th>
<th>Model</th>
<th>Peak force, lbf</th>
<th>Continuous Force, lbf</th>
<th>Speed, in/s</th>
<th>Size (mm)</th>
<th>Length, in</th>
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</thead>
<tbody>
<tr>
<td>Hot Runners – Direct Nozzle Control</td>
<td>DA82</td>
<td>1102</td>
<td>899</td>
<td>3.3</td>
<td>3.2”x3.2” (82x82)</td>
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<tr>
<td>Hot Runners – Multi Valve Control</td>
<td>DA67</td>
<td>1754</td>
<td>1349</td>
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<td>2.6”x2.6” (67x67)</td>
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<td>DA99-12</td>
<td>4282</td>
<td>2163</td>
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<td>Ejection, Core Pull, Co-Injection, Ram, Clamping</td>
<td>DA99-35</td>
<td>4946</td>
<td>2653</td>
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<td>DA140-312</td>
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<td>DA140-32</td>
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<td>9283</td>
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</table>

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