

CREATIVE MOTION CONTROL PERFORMANCE ROLLER SCREWS VERSUS ALTERNATE TECHNOLOGIES	CMC Performance Roller Screw	Planetary Roller Screw	Inverted Planetary Roller Screw	Recirculating Roller Screw	Precision Ground Ball Screws	Hydraulic Cylinders	Pneumatic Cylinders
<b>Load Rating</b>	Highest among roller screws: typically >10% greater than the next closest competitor	Very High	Very High	Very High	Moderate	Very High	High
<b>Average Efficiency</b>	>92%	>90%	>90%	>90%	>90%	<50%	<50%
<b>Force Density</b>	High	High	High	High	Moderate	High	Moderate/Low
<b>Synchronization</b>	Active Continuous Positioning	Ring Gear Required	Ring Gear Required	Uncontrolled	Return Tube	n/a	n/a
<b>Rotational Speed</b>	Highest	High	High	Low	Moderate	n/a	n/a
<b>Acceleration</b>	Very High	High	High	Low	Moderate	Very High	Highest
<b>Positioning Control</b>	Easy	Easy	Easy	Easy	Easy	Difficult	Very Difficult
<b>Stiffness</b>	Very High	Very High	Very High	Very High	Moderate	High	Low
<b>Shock Loads</b>	Very High	Very High	Very High	Very High	Moderate	Very High	High
<b>Operating Noise</b>	Low	Low	Low	Low	Moderate	Very High	Moderate/High
<b>Friction</b>	Low	Low	Low	Low	Low	High	Moderate
<b>Precision</b>	High	High	High	High	High	Low	Low
<b>Accuracy</b>	High	High	High	High	High	Low	Low
<b>Hysteresis</b>	Minimal	Minimal	Minimal	Minimal	Low	High	High
<b>Configurability</b>	Readily Customizable	High Expense	None	High Expense	Limited	Limited	Limited
<b>Installation</b>	Standard Servo Motor Controls	Standard Servo Motor Controls	Standard Servo Motor Controls	Standard Servo Motor Controls	Standard Servo Motor Controls	Complex	Very Complex
<b>Maintenance</b>	Very Low	Very Low	Very Low	Very Low	Moderate	Very High	High
<b>Environmental Impact</b>	Minimal	Minimal	Minimal	Minimal	Minimal	Hydraulic Fluid & Leaks Disposal	High Noise Levels
<b>Lifetime</b>	Longest Among Roller Screws	Very Long	Very Long	Very long	Moderate	With Proper Maintenance, Can Be Long Life	With Proper Maintenance, Can Be Long Life
<b>Cost</b>	Moderate	High	High	High	Moderate	Moderate	Moderate



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