

LISTEN.
THINK.
SOLVE.®

Kinetix® 5700 Customer Overview Presentation

Bulletin 2198



PUBLIC



Allen-Bradley • Rockwell Software

Rockwell
Automation

Contents

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Benefits

Differentiators

Positioning

Applications



Machine Builder Challenges

- Machine Builders today are challenged to differentiate themselves amidst global competition and rapidly evolving technology
- Machine Builders are pressured to achieve excellence in operational performance
 - Machines that take less space
 - Flexible Equipment Models
 - Reduce Overall Time to Market for their machines
 - Machines that are easier to install and commission
 - Simplified integration of automation systems
 - Machine Performance and Safety



Kinetix 5700 Servo System

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A Single Platform for **Complete** Motion Control



Snap fit bus systems, no tools required for **ease of installation**.

Single Cable Technology – **60% less wiring**.

Best in class power density, single and dual axis servos. **40-70% cabinet space reduction**.

Features **Integrated Safety** — controller based safety delivered via EtherNet/IP for **safe and flexible** machines.

Servo and vector motor control in a single platform to **simplify integration**.

Embedded run time tuning technologies to **dramatically reduce commissioning time**

Kinetix 5700 Servo System Benefits

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Less Is More

- Less Cabinet Space....
 - Dual Axis Servo Technology
 - 40-70% cabinet space savings
 - Costs savings from smaller cabinets and smaller machine footprint size
- Less Wiring.....
 - Single Cable Feedback Technology
 - 60% less wiring.
 - Costs savings from less wiring, ease of installation and fewer wiring problems.
- Less Tuning.....
 - Load Observer run time tuning technology
 - Reduces the need to tune most axes
 - Faster machine commissioning time. Faster time to market



Kinetix 5700 Servo System

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200A common DC bus
for shared energy
usage and savings



Multiple motor types
supported, including
DSL Single Cable
Technology

Power dense design
saves cabinet space



DC Bus
Supplies



Single Axis
Servos



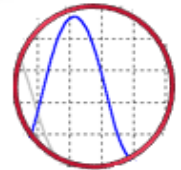
Dual Axis
Servos



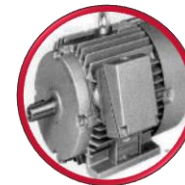
Combined Safety Technology.
Integrated or Hardwired
Safety - Safe Torque-Off
SIL3/PLe



Advanced tuning
technologies that
help improve
performance and
reduce tuning



Advanced motor
control technology



Kinetix 5700 Servo System Benefits

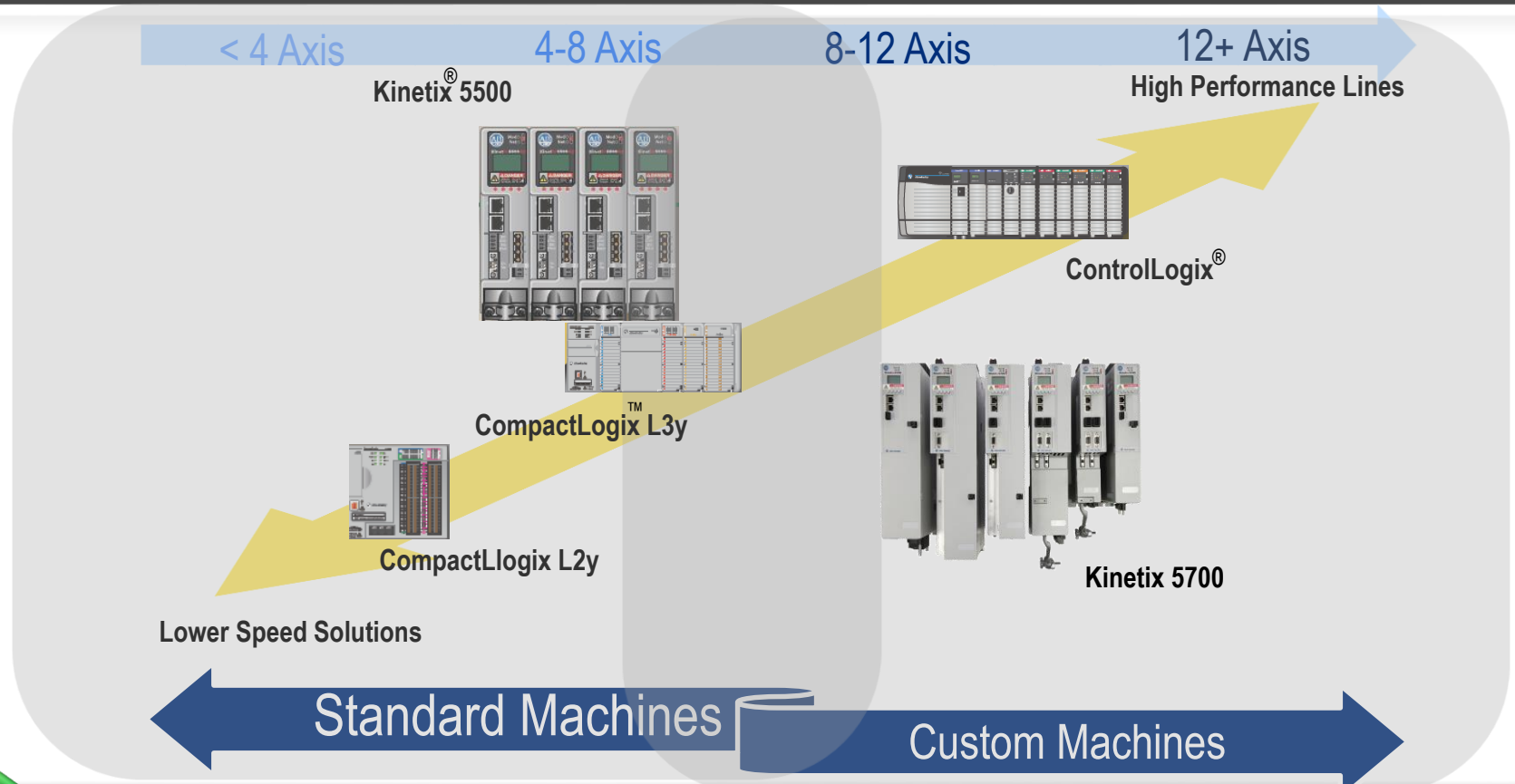
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More is Better

- More Motor Options....
 - Support for VP and MP Motor families
 - Support for RDB and HPK motors
 - Support for RA Linear motors, actuators, and thrusters
- More Power Options.....
 - From 1.6kW to 60kW drive models
 - Modular Power Architecture
 - Configure larger systems
- More Control Options.....
 - Servo Control
 - Flux Vector Control, with encoder
 - Frequency: Sensorless Vector Control



Kinetix 5700 Portfolio Positioning



Kinetix 5700 Applications

- Designed for.....
 - Large axis count
 - Higher power
 - Highest Performance
- Applications...
 - Converting, Print, and Web Handling
 - Complex Packaging
 - Press Automation
 - Tire Building



Press Feed



Narrow Web Press



Baking Line

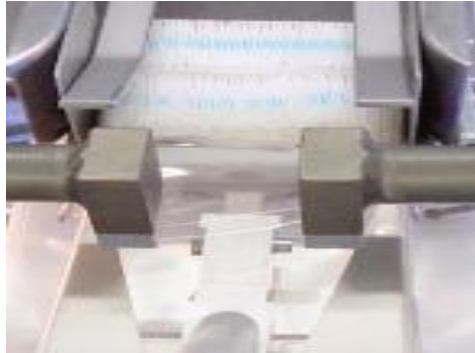


Tire Building Machine

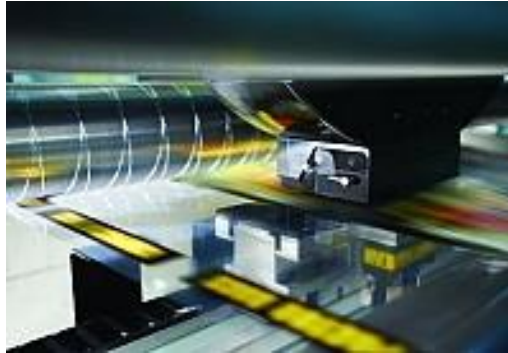


Target Applications: Kinetix 5700 Servo System

Diaper Making



Package Print



Tire Building



*Slitter-
Rewinders
Tissue
Converting
Confectionary
Lines
Flexo-folder-
gluer
Press Feeds*

Packaging
Material Handling
Manufacturing
& Assembly
Converting, Print & Web

Baking Lines
Consumer Products
Auto and Tire
Non Wovens
Coating and Laminating

TARGET MARKET
for a *industry focus*

Kinetix 5700 Applications

- Diaper Machines
- Corrugated Paper Machines
- Wipe and Napkin Machines
- Flexo-folder-gluer and Diecutter
- Printing Machines
- Tissue Converting
- Wire Rolling
- Bag Machines
- Slitter Rewinders
- Cartoners
- Pouching machines
- Tray Loaders
- Case Packing
- Product Distribution Systems
- Baking and Confectionery lines and systems
- Tire Building machines
- Press Feeds
- Conveyors
- Foundry Pouring Systems
- Unwind, Reel Stands
- Winder, Rewinds
- Coating and Laminating Machines
- Log Saws
- Folder-Gluers
- Shears
- Cutoff Knives
- Calendars
- Embossers
- Sheeters



Control Capabilities

- Motor Control Technology
 - Rotary Servo
 - Linear stages, thrusters, actuators
 - Dual Loop and Half Axis
 - V/Hz induction motor control
 - IM Sensorless Vector Control
 - IM Closed Loop Vector Control w/ encoder feedback
- Feedback Support
 - Hiperface DSL
 - Hiperface sin/cos
 - TTL incremental with halls
 - Generic sin/cos
 - EnDat sin/cos
 - EnDat Digital
- Tuning-less and runtime performance function
 - Load Observer
 - Adaptive Tuning



Adaptive Tuning

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With the Kinetix 5700 you will.....

- Reduce the need for a tuning expert
- Reduce the time to commission the drive
- Compensate for unknown mechanical effects
- Compensate for loads that can change over time
- Improve the performance of most applications
- Minimize power consumption and machine vibration
- Provide diagnostic data for preventative maintenance

Kinetix 5700 Motor Compatibility

	Dual Axis					Single Axis		
	D006	D012	D020	D032	D057	S086	S130	S160
VPL	✓	✓	✓	✓	✓			
VPF	✓	✓	✓	✓	✓			
MPL	✓	✓	✓	✓	✓	✓	✓	✓
MPF	✓	✓	✓	✓	✓			
MPS	✓	✓	✓	✓	✓			
MPM	✓	✓	✓	✓	✓	✓		
HPK						✓	✓	✓
RDB		✓	✓	✓	✓			

Broad motor options available with the Kinetix 5700 servo system

Kinetix 5700 Delivers

**Rockwell
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A Single Platform for **Complete** Motion Control



**MACHINES THAT ARE EASIER TO
INSTALL AND WIRE**

**MACHINES THAT ARE SAFE, FLEXIBLE,
AND HIGH PERFORMANCE**

**MACHINES THAT TAKES LESS
CABINET SPACE**

**MACHINES THAT ARE EASIER TO
INTEGRATE, SIMPLER TO TUNE, AND
FASTER TO COMMISSION**



Thank You



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