



How to Select the Right Linear Actuator – Electric vs. Pneumatic

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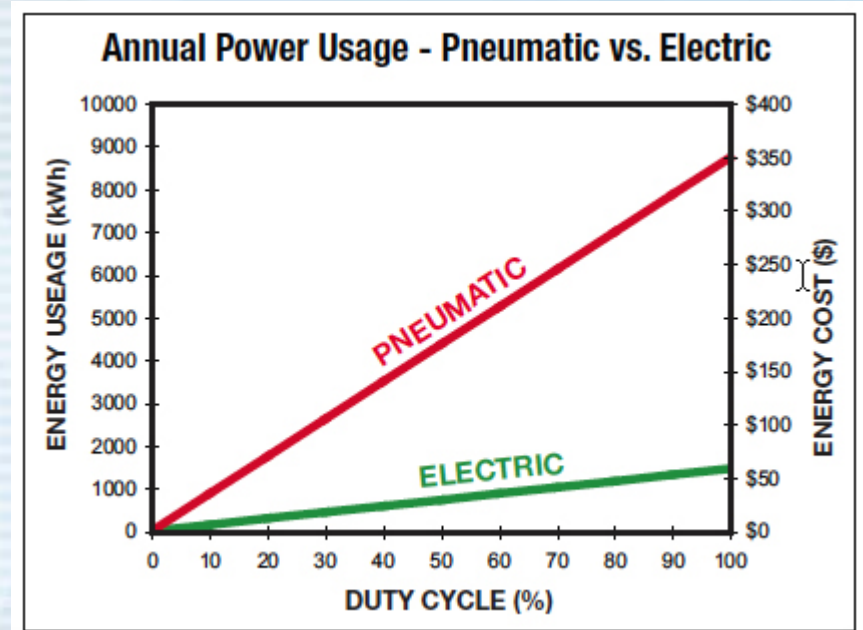
First considerations:

- Rod, guided rod or rodless
 - Rod-style actuator pushes or pulls a load
 - Guided rod actuator adds strength, support
 - Rodless actuator carries a load
- Stroke length
- Orientation/mounting
- Environmental factors
- *Electric or pneumatic*



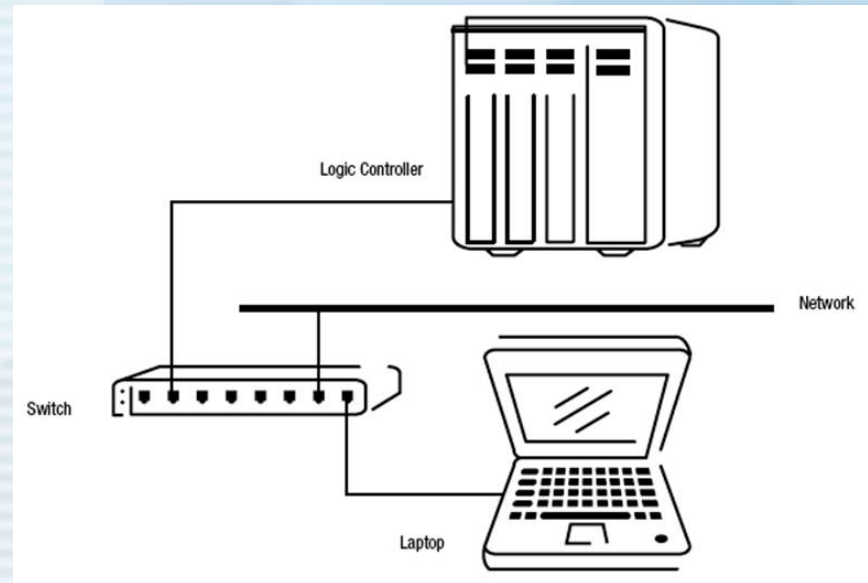
Advantages of Electric Linear Actuators:

- Low operating cost due to
 - Efficiency
 - Long service life
 - Minimal maintenance needs
- Programmable
- Capable of complex motion profiles
- Repeatable, accurate motion for faster production time and improved product quality



Disadvantages of Electric:

- Higher purchase price
- More effort to program



Best Applications for Electric:

- Higher duty cycle
- Complex motion profile
- Operating costs are considered in ROI
- Mission critical axes of motion for higher performance or higher quality



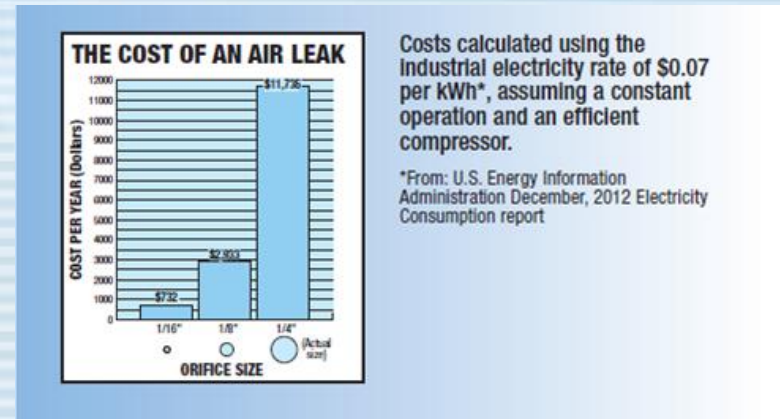
Advantages of Pneumatic Linear Actuators:

- Low purchase price
- Powered by existing factory pneumatic system
- Easy to replace
- Simple to operate



Disadvantages of Pneumatic:

- High operating cost due to:
 - Low efficiency
 - Need for frequent replacement and/or maintenance
 - Air leaks
- Not programmable
- Not capable of multiple stops and variable speeds
- Lower repeatability/accuracy can affect machine performance or production quality

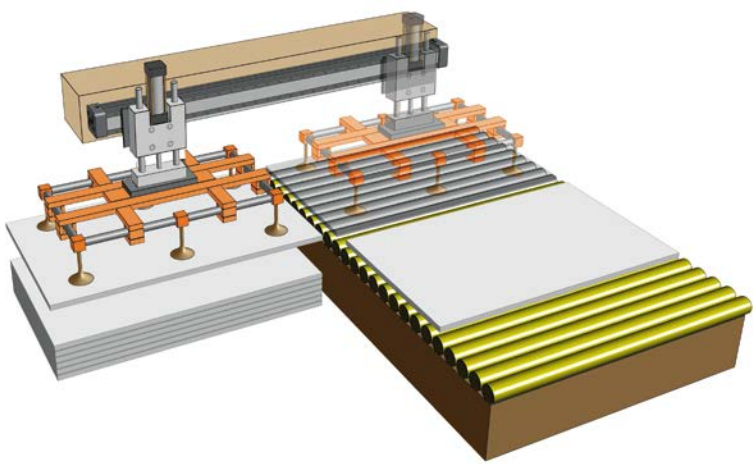


Best Applications for Pneumatic:

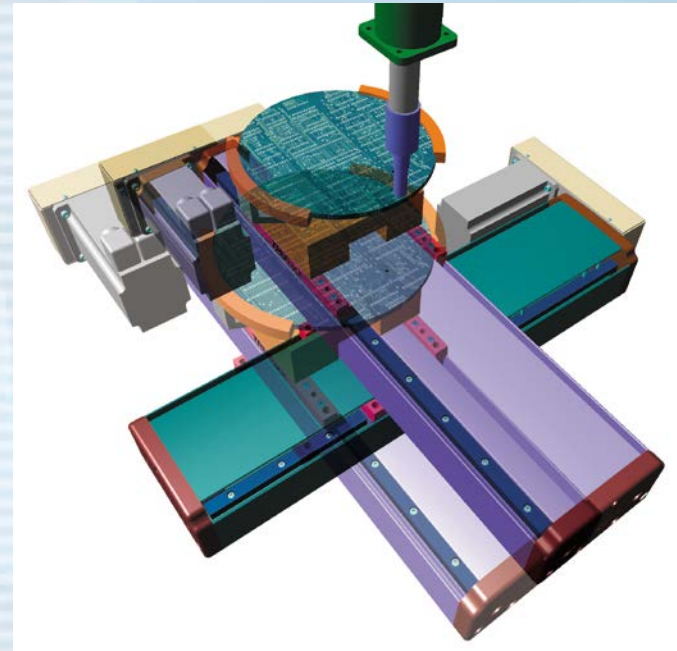
- Simple motion profile
- Existing pneumatic system
- Price/cost sensitive



Electric or pneumatic? You decide.



Pneumatic



Electric



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