

## SERVO PILOT ROLL FEEDS

### APX Series



#### Servo Controlled Pilot Release

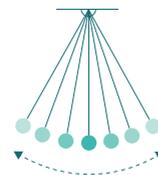
This patented technology from CHS Automation is the next generation of precision, high-speed press feeding. Servo controlled pilot release is ideal for SERVO and mechanical presses, in which feed timing is limited or critical. The completely programmable roll lift eliminates the slow and often inconsistent pneumatic pilot release found in all other roll feeds. Make the move to the **APX Series** roll feeds to put your press on auto pilot.



Consistent, precise upper feed roll lift position and timing

**5 Millisecond response time**

Ultra fast mechanical response time for roll open and close.



Designed & optimized to virtually cam with servo presses in pendulum modes



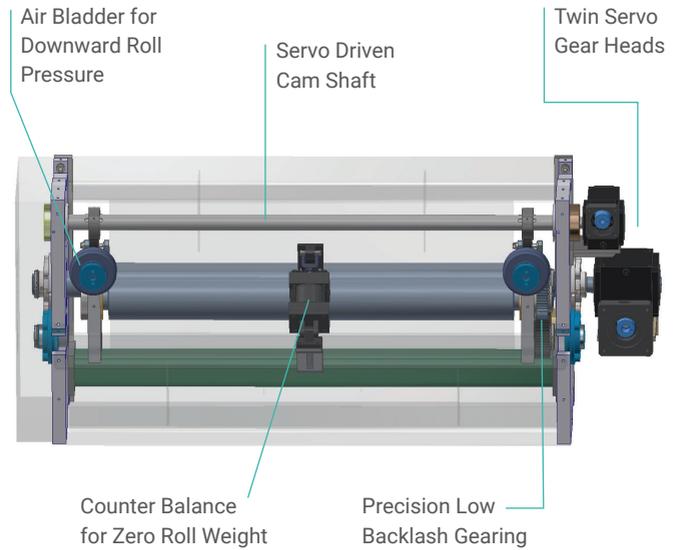
**US Patent 10, 118, 785 B2**

#### Issues Solved

- >> Full control of upper roll downward pressure for a wide range of materials.
- >> Fully programmable roll lift height over material thickness.
- >> Parameters saved and recalled in the control system per job.
- >> 5 Millisecond response time eliminates compensation for lag in pneumatic systems.

## Machine Features & Benefits

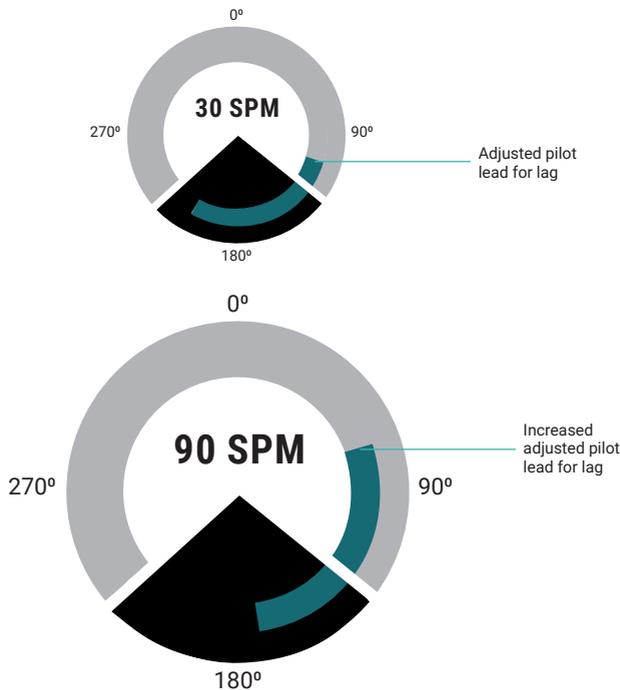
1. Upper feed roll is opened and closed via servo driven cam assembly in lieu of pneumatic cylinders.
2. Constant roll gripping pressure is provided by bladder style air bags.
3. Counterbalanced upper feed roll which provides zero roll weight ratio when running thin or aluminum materials.
4. Intuitive controls that mimic traditional pilot release programming for operator set up.
5. Job recall for quick job / die change over.
6. Improved pitch control contribution to better part quality and tool life.
7. Assembly is built from low maintenance components.



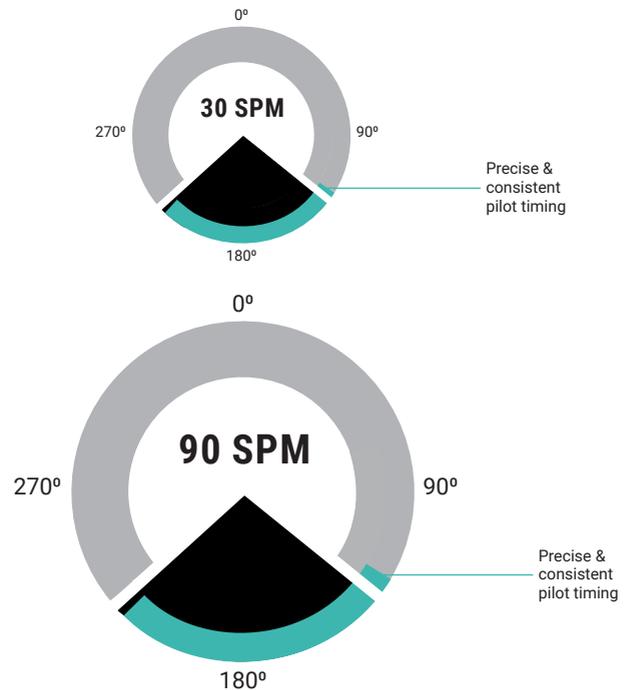
### APX Series Servo Pilot vs Pneumatic Response Time

To demonstrate the efficiency of the servo driven pilot release, we compared the APX to traditional pneumatic pilot at 30 and 90 SPM with a die pilot degree angle of 135 On – 225 Off. Regardless of the SPM increase with APX at 5 ms and pneumatic at 100 ms, APX performance remains consistent and unmatched in performance.

#### Pneumatic Pilot Timing



#### Servo Pilot Timing



## PAYBACK

- >> Higher SPM (parts per minute) with precise and accurate pitch lengths
- >> Eliminates the need for constant manual pilot adjustments by operator / set up