

# SULLIVAN-PALATEK: COMPRESSED AIR AND AMUSEMENT PARKS



**SULLIVAN  
PALATEK**

Compressed air plays a critical and versatile role in amusement park attractions, helping to power and automate systems where speed, precision, and safety are paramount. Here's a deeper dive into how compressed air is used in various aspects of theme park operations:



## ROLLER COASTERS & RIDE SYSTEMS

- **Pneumatic Braking Systems:** Many coasters use compressed air to activate caliper-style brakes for safe and rapid deceleration.
- **Launch Assist:** Some rides use pneumatic cylinders or air launch systems (similar to aircraft catapults) for quick acceleration.
- **Restraint Systems:** Safety harnesses or lap bars may be pneumatically actuated and locked into place.
- **Lift Gates & Station Controls:** Compressed air powers gates that control the loading and unloading of passengers.



## ANIMATRONICS & MOVING FIGURES

- **Smooth, Quiet Motion:** Pneumatic actuators provide lifelike motion without the noise of electric motors.
- **Safety & Simplicity:** Air-powered systems are generally easier to control and maintain, making them ideal for complex motion sequences.
- **Cost-Efficient Control:** Multiple movements can be handled with a centralized air supply and control system.



## SPECIAL EFFECTS & SHOW ELEMENTS

- **Air Cannons:** Launch confetti, streamers, snow, fog, or CO<sub>2</sub> blasts for dramatic effects.
- **Pneumatic Triggers:** Power trap doors, surprise lifts, springboards, or pop-up props during live shows or haunted houses.
- **Motion Platforms:** Simulators and 4D attractions often use air-powered actuators to move platforms in sync with video.



## MAINTENANCE & UTILITY SUPPORT

- **Cleaning:** Blasting dirt and debris from track systems, queue lines, and sensitive equipment.
- **Power Tools:** Air-powered wrenches and drills used for ride maintenance.
- **Painting & Coating:** Compressed air used in spray painting equipment for refurbishing rides and props.

## OPERATIONAL AUTOMATION

- **Gates & Turnstiles:** Compressed air systems quietly and efficiently control guest access and movement.
- **Conveyor Belts:** Air power is often used to control packaging and movement in automated systems like food and merchandise delivery.



## WHY SULLIVAN-PALATEK FITS THIS ENVIRONMENT:



**Quiet & Efficient:**  
Their rotary screw compressors are ideal for environments where noise must be kept to a minimum.



**Customizable Air Quality:** Paired with Beko filtration and dryers, they deliver clean, dry air—critical for animatronics and valves.



**Reliable & Low Maintenance:**  
Essential for amusement parks that run rides all day with minimal downtime.



**Made in the USA:**  
Parks value domestic service and support, especially for mission-