More efficient and profitable airports

- Shorter waiting time and greater agility by dispatching the airplanes faster.
- Airlines can transport more passengers daily, which increases the number of flights in the medium to long range.
- **Higher efficiency and competitiveness** of the airport, both at national and international levels.
- Minimum delays for the passenger who spends less time in transportation instead of waiting inside the airplane.
- Benefits the environment as it allows a reduction in emissions from paymovers and airplanes and the noise that can affect neighboring communities.
- Denser airports which can host more aircrafts in the same area thanks to efficient use of the apron.

**Less expensive airports** to build and to operate.

**Environmentally friendly**
- The JBD reduces noise up to 10 dB in the area behind it.
- The jet blast deflector is made of a modular structure able to withstand the aerodynamic loads, easy to assemble and maintain.
- The jet blast deflector is made of galvanised steel coated with epoxy-based paint, this guarantees its durability and weather resistance.
- A 5 minute savings represents US$ 600k of fuel in one year of operation*.
- For an airport, a 5 minute savings means one more dispatch per day and profits greater than US$11,000 per each boarding gate.
- The average break-even point on a single pier implementation is 36 months.
- A reduction of 5 minutes in pushback time results in avoiding 3,300 tons of CO2 per year from paymovers and airplanes.
- For 15,000 flights per year under 500 miles.

**Useful surface optimization**
- The apron behind the jet blast deflector is safe to airplanes and operations personnel.
- The airplane is towed by a paymover to a near safe turn-on and breakaway position.
- The pushback distance without jet blast deflector is considerably greater.

**Vortex generators**
- Modular structure
- Scale backside
- Endplate
- Airflow
- Flow
- Thrust
- Upward deflection keeps the wind away from the ground.

**Jet blast deflector**
- Thrust
- 12 m.
- 52 m.
- 6 m.

**Bioinspired improvement of airport efficiency**

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**Bioinspired improvement of airport efficiency**

**REFERENCES**

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