

MARKET

APPLICATIONS AND END USE

EXAMPLE END-USE SUSTAINABILITY IMPACT



Aerospace & Defense

- Rings, discs & other components for engines
- Fasteners for both the airframe and engine
- Structural components (e.g., landing gears)
- Auxiliary power units (e.g., back-up generators)

- Improve energy efficiency of aircraft
- Reduce GHG and other air emissions
- Reduce material required to manufacture parts
- Eliminate environmentally hazardous coatings & plating processes



Medical

- Orthopedic implants
- Cardiology stents and tools
- Surgical tools
- Dental screws & abutments

- Improve patient outcomes
- Reduce incidence of adverse events
- Eliminate hazardous coatings



Energy

- Offshore wind power-generation components
- Onshore & offshore drilling and completions equipment
- Wheels, spacers, bolting & fuel nozzles for power-generation equipment

- Improve performance of renewable energy capture systems
- Reduce emissions of power-generation equipment
- Reduce waste with longer tool life
- Reduce environmental exposure through high-integrity safety systems



Transportation

- Engine components (e.g., turbochargers)
- Structural components (e.g., suspensions)
- Electrical motors, power electronics & charging systems

- Improve energy efficiency of vehicles
- Reduce material required to manufacture parts



Industrial & Consumer

- Flow control for manufacturing of semiconductors
- Components that enable miniaturization in electronics, including smart phones, smart watches & wireless headphones

- Reduce waste by extending life of products
- Reduce material required to manufacture parts