

**Bental Industries Ltd.** a leading design & manufacturing house of power & motion systems for land and air defense platforms as well as commercial applications - is showcasing its latest solutions for mini and micro UAVs. Meeting the unique needs of its partners and customers around the world, Bental delivers end-to-end tailored solutions based on the company's comprehensive line of onboard integrated solutions for UAVs. That include sophisticated servo motors, cutting-edge propulsion systems, servo actuators, alternators and starters, and the latest mini stabilized payload systems of surveillance application. These extensively field-proven solutions have amassed to an exceptional track record of success with the most known UAVs in Israel and around the globe.

### **MicroBAT 275 -- Mini Payload System for Mini & Micro UAVs**

As the smallest and most compact of stabilized payload systems, the MicroBat 275 is ideal for use in a variety of UAV applications, including VTOLs, Mini and Micro UAVs and small UGVs. Weighing under 400gr, the MicroBAT enables precise control of camera movement, zoom and focus control all in a sealed structure. Unusually flexible and rugged, this stabilized system can be mounted on the front, top or bottom of the platform. This unique product underscores Bental's capability to understand the needs and limitations of end-users and provide the right solution. The MicroBAT 275 provides excellent close range surveillance capability while maintaining the payload system simple, light weight, small and affordable.

### **Propulsion Systems for Wide Range of Platform Sizes**

Bental's propulsion motors underscore the everlasting struggle against the weight of its products. Bental introduces Mil-Standard designed motors with remarkable power to weight ratio. Among the special attributes that Bental is providing with its electric propulsion solutions are: high reliability, high efficiency, clean components, ease of assembly, use and maintenance, low vibration and thermal signature, long life and more. As the electric batteries continue to develop, Bental will be found in more and larger platforms.

The company's family of propulsion systems provides advanced solutions for UAVs ranging from 1kg to 80 kg. All of Bental's systems are designed as a Mil-Standard solution for the purpose of long-life, high efficiency and high reliability, and can withstand the most severe environmental conditions. Fully customizable, they are offered with their required drivers/controllers included.

The 56g B-013 Mini UAV Propulsion Motor, designed for micro UAVs is a permanent magnet, sensorless motor for propelling micro airborne vehicles.

Weighing only 400 grams the **B-020** - supports Mini UAVs of up to 8 kg. Delivering 1 kW, the system provides an exceptionally high power-to-size/weight ratio. Its small size enables easy integration, and its low weight increases flight endurance thus facilitating critical mission success. The **B-020** motor is fully sealed for protection from harsh environments.

The biggest propulsion motor, the **B-047** is designed for Low altitude UAVs. Weighing merely 1.7kg, this motor is proving again the special capability to offer excellent power to weight ratio.

### **Starter Generators**

Bental's newest line of unified Starter Generators, which start a UAV's main engine and provide power to platform systems, unify two functions into one unit. Safe, remote start of a platform's main engine is achieved by having the alternator function as a starter. The resulting substantially reduced weight and volume, as well as increased platform and operator safety, offer the additional benefits of ease of operation and reduced operating personnel number. Providing engine starting capability without adding weight or size to a platform or its alternator, while reducing manpower, is an example of Bental's innovative approach to listening to the end-users and supplying solutions accordingly.

### **Servo Actuators**

As a producer of new servo actuators for UAVs, Bental understands the needs of its clients and defines its design objectives accordingly. The RSA-03-022 and the company's new RSA-06 are testimony to that. With its ongoing product improvement program, the company continues to meet ever rising demands for higher torque, accuracy, redundancy and reliability. Performing a critical role in UAV flight control, Bental's servos are used for flap control, wheel control, throttle control and more. Based on existing company technologies, these products incorporate high efficiency brushless motors, accurate gear-box, feedback sensors, and electronic drivers and controllers with PWM or digital protocol control which operates the servo drive and provide feedback to the UAV's computer regarding its position.