Compact Brushless Servo Motor Combination.

These small DC motor combinations are perfect for robotic applications where weight is a premium.

When Australia’s leading automotive parts manufacturer builds robotic assembly equipment they turn to the leading manufacturer of small DC servo motors. “Power density”, this is a particular buzz phrase in the robotics and automation industry at the moment and motors and drive controller technology are at the core of this requirement. This flat or “pancake” brushless DC motor when used in conjunction with a high reduction planetary gearhead gives very high torque levels for the motor and gearheads combined length, diameter and mass. In the application on a cyclic basis the servomotor combination delivers up to 6.5Nm with a motor and gearhead length of only 61mm, a motor and gearhead diameter of only 32mm and a mass of just 240g. These features make it suitable for any automation application where the mass of the motor is located on another moving actuator. When designing robotic arms for example, if you start with higher mass components on the end you have a cascade effect of increasing motor size towards the base of the unit. This critical power density criteria also flows onto the motor control electronics. The less efficient the servo motor is the higher the current draw for a given load, the higher the current draw the heavier the cables, and motor controllers also need to be larger to cope with the additional power. Recently servo motor controllers have become so small and efficient that designers and engineers are mounting the controllers close to the motor on the moving parts to reduce the number of cables on the arm section of the gantry or robot arm. Indeed this was the main reason for the selection of the ESCON (Easy to use Servo Controller) 36/3 servo motor controller specifically for brushless DC motors. The controller can be used anywhere between 10 VDC and 36VDC it can deliver up to 9A on a short term basis and up to 3A continuous. The motor control unit has very fast response and weighs in at a mere 36 grams. With dimensions of 55x40x19.8mm when combined with the servo motor at the point of the robotic joint the total servomechanism is achieved at a tiny 276 grams.

Contact maxon motor in our Sydney office for further information +61 2 9476 4777.

Length of this press release: 395 words.

The media release is available on the internet at: www.maxonmotor.com.au
maxon motor Australia Pty Ltd
4/22 Leighton Place
Hornsby NSW 2077
Tel: +61 2 9476 4777
Fax: +61 2 9476 4866
Info.au@maxonmotor.com
www.maxonmotor.com.au