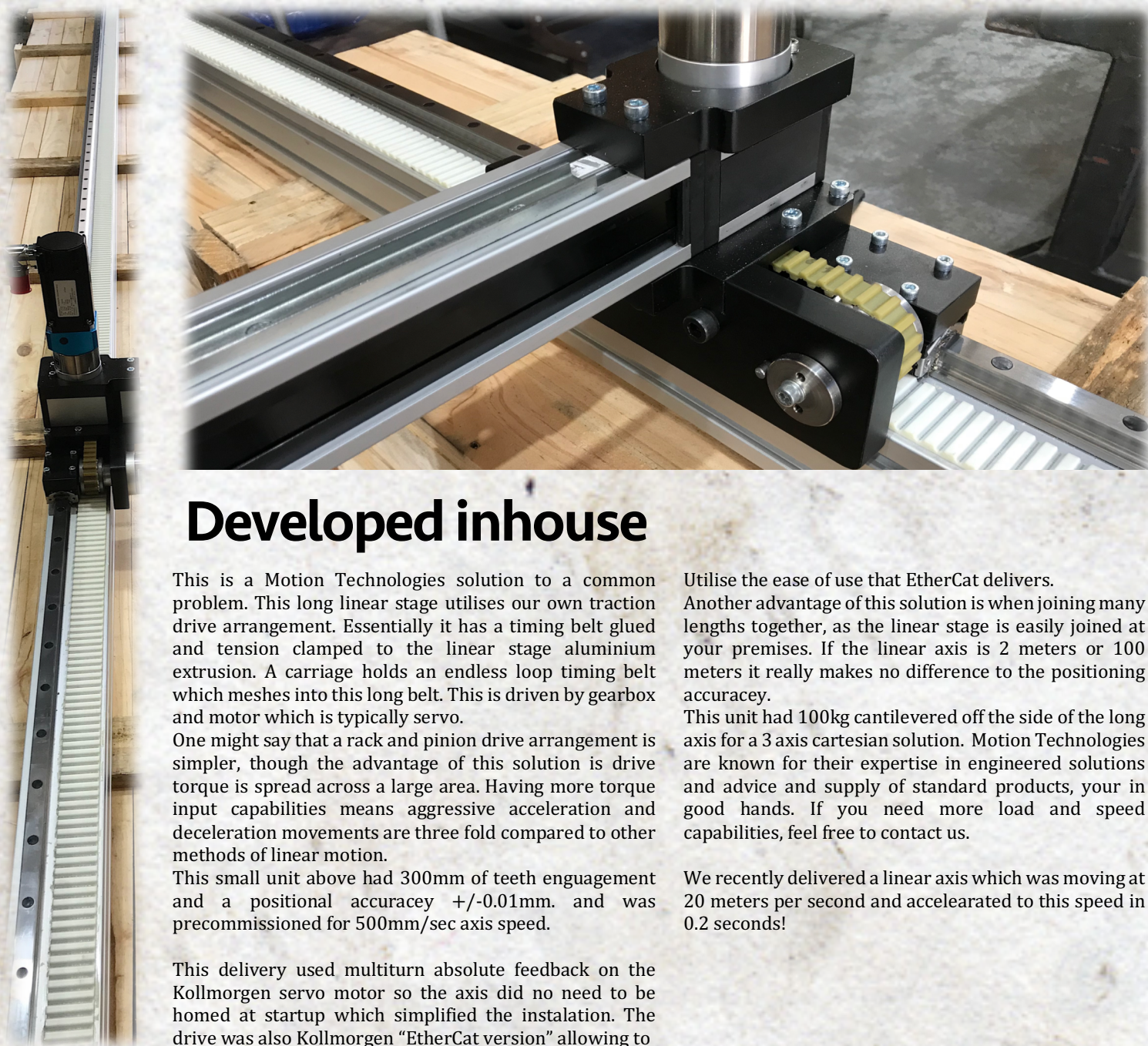


Another Solution Found!

LONG LINEAR AXIS REDUCES POWER AND PRICE



Developed inhouse

This is a Motion Technologies solution to a common problem. This long linear stage utilises our own traction drive arrangement. Essentially it has a timing belt glued and tension clamped to the linear stage aluminium extrusion. A carriage holds an endless loop timing belt which meshes into this long belt. This is driven by gearbox and motor which is typically servo.

One might say that a rack and pinion drive arrangement is simpler, though the advantage of this solution is drive torque is spread across a large area. Having more torque input capabilities means aggressive acceleration and deceleration movements are three fold compared to other methods of linear motion.

This small unit above had 300mm of teeth engagement and a positional accuracy $\pm 0.01\text{mm}$. and was precommissioned for 500mm/sec axis speed.

This delivery used multiturn absolute feedback on the Kollmorgen servo motor so the axis did no need to be homed at startup which simplified the installation. The drive was also Kollmorgen "EtherCat version" allowing to

Utilise the ease of use that EtherCat delivers.

Another advantage of this solution is when joining many lengths together, as the linear stage is easily joined at your premises. If the linear axis is 2 meters or 100 meters it really makes no difference to the positioning accuracy.

This unit had 100kg cantilevered off the side of the long axis for a 3 axis cartesian solution. Motion Technologies are known for their expertise in engineered solutions and advice and supply of standard products, your in good hands. If you need more load and speed capabilities, feel free to contact us.

We recently delivered a linear axis which was moving at 20 meters per second and accelerated to this speed in 0.2 seconds!

Motion Technologies. Your home for resolving engineering problems. Phone 02 9524 4782