XPlanar: additional degree of freedom for planar motor drive system through software-based 360-degree rotation

The XPlanar planar motor system from Beckhoff enables the contactless, parallel and individual transport of products. The XPlanar movers can fly freely in two dimensions over the XPlanar tiles and execute lifting movements with a stroke of up to 5 mm. These system properties have now been enhanced by new software-based 360-degree mover rotation functionality.

The purely software-based 360-degree mover rotation extends the familiar and highly flexible XPlanar movement range by a full degree of freedom. The XPlanar movers can rotate endlessly around their own axis while levitating at selected positions on the system. The rotation can be executed dynamically with a frequency of up to 10 Hz and makes a variety of groundbreaking applications possible. For instance, the mixing of liquids or the 360-degree inspection of objects can be realized with this additional degree of freedom. Furthermore, the movers can leave the rotation positions with an orientation changed in 90-degree steps, so that the transported workpieces are correctly aligned in accordance with the remaining processing steps.

The 360-degree mover rotation is made possible by the deep integration of the XPlanar system into the PC-based control technology from Beckhoff. A simple software update is all that is needed to implement the new rotation function in existing systems. Special hardware products are not required.

More information:
www.beckhoff.com/xplanar