

氣浮達摩 DiAMOND



Innovative solutions

DiAMOND is a nano accuracy positioning stage developed for semiconductor/FPD industries and features air bearing of new generation. It is leading by using vacuum preloaded air bearing with low consumption, dynamic counter balancing technology and mass compensation algorithm, which enable accurate motion in a thousandth second, decreasing production takt time. Furthermore, friction is eliminated so that equipment reliability is increased.

DiAMOND has the following innovative features:

Dynamic-balance:

It performs extraordinary nano motions with help of counter balancing technology and mass compensation algorithm, while disturbances are actively cancelled, setting a new standard for future generation of precision positioning.

Modularize & Organic:

With highly modularized green design and manufacturing, combining efficient direct drive and low air consumption bearing, it meets Class 10 clean room regulation and satisfies low particle emission need.

Astro-precision:

Linear motor, porous air bearing with vacuum preload and SiC ceramic guide are used and the servo drive ensures continuously reliable nano accuracy.

Novel-Design:

Patents in the technology of counter balance, mass compensation and error adjustment mechanism are applied in main industrial countries, striving toward the goal of leading in the high end motion technology.

Green innovation

DiAMOND achieves 14% higher bandwidth and 33% less heat dissipation driven by the new generation high speed network type servo drive. It realizes the ultimate goal of nearly 100% energy efficiency by combining low consumption bearing and direct drive motor, saving 80% air usage compared to traditional ones and achieving 120% more transmission efficiency.



Bandwidth

+14%



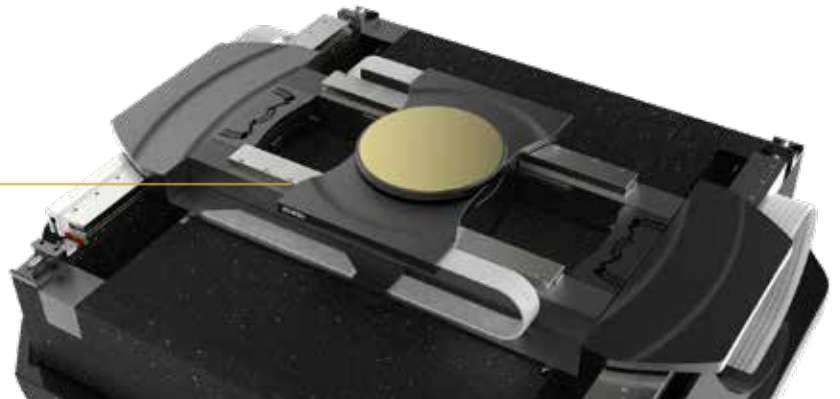
Transmission efficiency

+120%



Power saving

+80%



Service innovation

D1-N is the drive for DiAMOND, it is EtherCAT conformance tested, Function Safety and CE certified. With the field bus system, networking is possible, so that remote monitoring and effective global service within 24 hours become handy, providing a brand new experience in the Industrie 4.0 application.

