

European Launch of the New Boxer style Okamoto IGM15NCIII-2B Twin Spindle Internal Grinding Machine at EMO 2023



At the Hannover EMO 2023, Okamoto proudly presents the new IGM15NCIII-2B Twin Spindle Internal Grinder. The new “Boxer” type internal grinder features independently moving wheel spindles for different sized grinding wheels allowing multiple external and internal grinding operations with more flexibility and capacity, in the same loading to be carried out.

The IGM15NCIII-2B can swing up to Ø260mm inside the chuck cover with a grinding length of around 125mm. We offer a wide selection of wheel spindles with speeds ranging from 6,000 to 60,000 rpm. The wheel spindles are mounted in high rigidity quick change dovetail housings and driven via Fanuc High Torque 2.2kw AC motors.

To further enhance the flexibility and capacity of the machine, the design also features a swing-down dressing arm, a two-axis manual pulse generator handwheel with 0.1 µm increment, and joystick control of the rapid feed of both axes. To ensure maximum efficiency, the “Boxer” is equipped with a coolant supply through the work-head and a programmable coolant flow to each wheel spindle and the dressing station.

The machine construction features a highly rigid large section bed structure with fully supported linear guide slideways for added stability. AC servo motors are directly coupled to the ball screws for spindle and work-head infeed and for high accuracy wheel positioning.

Like the other machines in the IGM-15NCIII Series, the new machine uses the latest Fanuc Oi control with touch screen interface and with Fanuc drives on all axes. Using the Okamoto Grinding Data Automatic Setting Function, with data input via the touch screen operator user interface, complex

workpieces featuring internal bores, tapered bores, external diameters, and shoulder faces can be easily and efficiently ground in one continuous cycle. With the help of the expanded standard Fanuc keyboard, ISO G Code dress or grind programmes can also be set.

The Okamoto Grinding Data Automatic Setting Function automatically sets the most suitable grinding parameters, according to the many years of experience of Okamoto, after inputting only the wheel grain size and wheel width. The combination of the Okamoto Grinding Data Automatic Setting Function, an easy-to-use touch screen control, and a precise and robust mechanical design ensure the highest accuracy and efficiency.