



GKM

Introducing the new

XMINI

EXECHON

A Lockheed Martin • Injaz • Tecgrant Joint Venture



XMini is the next-generation intelligent portable machine system. As a standalone tool or as part of an existing production system, it combines the flexibility and high dynamics of the articulated arm robot with the stiffness and accuracy of the rigid machine tool. XMini's all-carbon fiber construction makes it durable, lightweight and portable. Its small footprint allows it to go where other automated solutions cannot.



Flexible Design

Building on the strengths of existing automation tools, the agile XMini offers full 5-axis capability, with extreme acceleration and high accuracy. Three linear actuators provide a strong, rigid and flexible framework. A flexible head enables compound-angle operations at any angle. The head can even point back toward itself, allowing operations on all sides of a complex part in a single setup.

XMini brings a full suite of automated manufacturing options to the workspace. It can be equipped with a 3D laser probe and tool changer to support machining, orbital drilling and assembly as well as laser cutting/welding and friction stir welding.



Quick and Easy Workflow Integration

XMini integrates into a production workflow within 72 hours without complicated logistics or configuration – and that includes assembly. Its four lightweight modules can be hand-carried to a work cell by one or two people, and assembled in place with no special tooling or machinery. XFrame, a flexible design, customization and installation system, adapts XMini's frame system to any existing jig or fixture.

XMini's automated calibration system, XCAL, greatly simplifies setup and part pairing. A newly installed XMini equipped with a conventional or 3D laser probe automatically moves over a part, takes measurements and adjusts programming data accordingly before operations begin. Multiple XMinis can sync to operate cooperatively on multiple sections or parts.

Bring the Machine to the Part

The days of reconfiguring a workspace around an immovable machine are over. The modular and lightweight XMini easily moves around the factory to support new or changing production environments. Take it apart and reassemble it in spaces inaccessible to traditional machines, such as aircraft wing boxes and complex manual jigs and fixtures.

EXECHON XMini Distributor for Japan

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Article No	121-100-4-301-W58
Ax1 Max Speed (m/min)	60
Ax2 Max Speed (m/min)	60
Ax3 Max Speed (m/min)	60
Ax4 Max Speed (rpm)	37
Ax5 Max Speed (rpm)	37
Max Speed X/Y/Z (m/min)	150/150/60
Max Acc. X/Y/Z (m/s ²)	30/30/10
Ax1 Travel (mm)	300
Ax2 Travel (mm)	300
Ax3 Travel (mm)	300
Ax4 Rotation (deg)	±360
Ax5 Rotation (deg)	-4 / +115
Positioning Accuracy (micron)	+/- 10
Repeatability (micron)	< 5
Spindle No	HT 114.15 A 30 CHIKPVW
Tool Interface	HSK-E40
Tool Lubrication	MQL through Tool*
Type of Bearings / Lubrication	Ceramic Ball / Grease
Diameter (mm)	Ø114 h6
Length (mm)	440
Distance from Ax5 to Spindle Interface (mm)	110
Max Speed (rpm)	20,000
Base Speed (rpm)	10,000
Power S1-100% (kW)	11.5
Torque S1-100% (Nm)	11.1
Power S6-40% (kW)	15
Torque S6-40% (Nm)	14.3
Module Weight (kg)	250
Controller	Siemens 840D Solution Line
Base Frame	XFrame Customized

*Option 80 bar High Pressure