



Leader in Superabrasive Finishing Systems

# AMX-18D

## Advanced Materials System

The Engis® AMX-18D series floor standing machine is designed to accommodate a variety of surface preparation requirements. Depending on configuration, this machine is capable of **Fine Grinding, Lapping and Polishing** of advanced materials such as:

- Semiconductor (silicon, germanium, etc.)
- Compound Semiconductor (GaAs, GaN and InP, etc.)
- Electro-Optics (LiNbO<sub>3</sub>, BBO, etc.)
- Ceramic, Silicon Carbide, Sapphire & Glass

This system is excellent for R&D work at universities, research centers, prototype and small volume work in commercial sectors - especially when development is needed so as not to conflict with production cells.

Built for diamond fine grinding and lapping, as well as CMP polishing, this system has been totally engineered from the ground up - a rigid and compact machine tool with advanced features. Live sensor feedback with data capture makes the AMX responsive and capable of maximum process control. Easy to program complex recipes, this unit comes standard with program memory and networking capability.

This series comes standard with two independently programmable Power Heads. To customize the system, users can order from a choice of platen speeds, power and downforce pressures. For higher performance, the system is available with plate oscillation.



Standard Model AMX-18D shown

### STANDARD FEATURES

- Real-time spindle and pressure sensor feedback and data acquisition
- User friendly touch panel programmable Graphical Logic Controller
- Fully programmable pressure heads and tool spindles with program save and recall
- Accommodates platen sizes from 15" to 20"
- Integrated slurry dispensing system
- Totally enclosed, fully interlocked working area with easy-open doors
- Floating vacuum-actuated work holder

### MACHINE ALSO INCLUDES:

- Variable Speed Drive (VSD™)
- Soft-Start Drive (SSD™) - spin-up & spin-down feature avoids damage to polished components
- Precision cartridge spindle
- Heavy duty ribbed, cast work surface
- Rigid, welded steel base construction
- Corrosion resistant work area with oversize drain for cleanup
- Optional integrated in-process thickness control.

#### ENGIS CORPORATION

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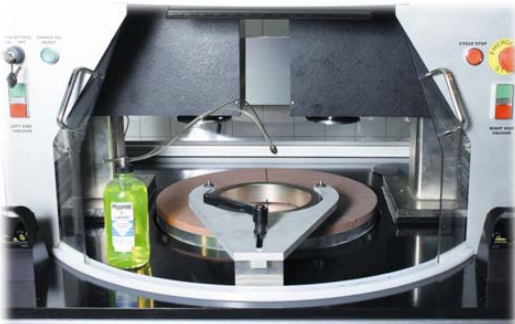
LAPPING / POLISHING





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## AMX-18D Specifications



Work area showing interlocking doors fully opened along with optional roller yoke in position with Hyprez® diamond plated conditioning ring.

Heads-up display/touch control panel programs, stores and monitors machine process parameters. Shown with Hyprez® ceramic wafer mounting plate and stainless steel backed ceramic ring.



Machine Dimensions (in/mm):	38" x 49" x 67" / 965 mm x 1245 mm x 1702 mm
Lap Plate Diameter (in/mm):	18" / 457 mm nominal (15"/381 mm - 20"/508 mm range)
Work Ring Inside Diameter (in/mm):	7" / 178 mm
Work Table Dimension (in/mm):	38" x 38" / 965 mm x 965 mm
Platen Spindle (reversible) RPM, HP/kW:	Standard: 10-120 RPM, 2 HP / 1.49 kW Optional: 25-250 RPM, 3 HP / 2.24 kW
Power Head Spindles (reversible) RPM, HP/kW:	3-100 RPM, 0.17 HP / 0.13 kW
Power Head Down Pressure (lbs/kg):	Standard: 10-100 lbs / 4.5-45 kg Optional: 20-350 lbs / 9.0-158 kg
Power Head Pressure & Speed Ramp-Up:	Adjustable & programmable
Floating Vacuum Actuated Work Holder:	Standard
Oscillation:	Optional, programmable
Operating Voltage:	230 VAC, 1-Phase, 50/60 Hz
Data capture:	Standard
Networking:	Network ready
Integrated Slurry Dispensing:	Standard
OPTIONS:	<ul style="list-style-type: none"> <li>• In-process auto sizing</li> <li>• Oscillation</li> <li>• High output downforce</li> <li>• High platen speed range</li> </ul>
<i>Note: Dimensions &amp; weights are rounded. Specifications are subject to change without notice.</i>	

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