





# KHAN

## Helping your people

Different users need different levels of operation and control. Khan's extended user log helps operators, maintenance technicians and process engineers access and control what they need, when they need it, with individual "log in" according to your needs.

But the latest generation of Khan controllers also introduce new features making our daily lives easier - "drag and drop" menus for simple build up of a new process from existing process modules or complete integration of Residual Gas Analysers (RGAs) for statistical process control. Custom "wizards" with operating prompts (e.g. source refill instructions during batch change) are also available to support production personnel.

### "The right level for everyone"

 <h4>Manufacturing mode</h4> <ul style="list-style-type: none"> <li>Individual user log in and password with safe system commands</li> <li>Recipe viewing and selection</li> <li>Viewing and downloading run statistics</li> </ul>	 <h4>Maintenance mode</h4> <ul style="list-style-type: none"> <li>Definition of maintenance prompts, eg. shield changes, pump and valve maintenance</li> <li>Manual set up and adjustment of process sources</li> </ul>
 <h4>Process mode</h4> <ul style="list-style-type: none"> <li>Process definition and editing</li> <li>Intervention in "active" process in "safe" environment</li> </ul>	 <h4>Service mode</h4> <ul style="list-style-type: none"> <li>Full system control including all facilities of manufacturing, maintenance and process modes</li> <li>Full digital I/O control and user log tracking</li> <li>System configuration changes</li> </ul>



Single or up to 4 windows viewable simultaneously



Hardware Specifications	
Base Platform	19" rack with industrial server, 17" flat panel display
Mass Storage	Hard Disk with built in redundancy and CD RW
Connectivity	Distributed Digital I/O Modules Distributed Analog I/O Modules RS 232 and industrial Ethernet

Software Specifications	
Basis	Windows based, with built in help function and user log book
User Interface	SEMATECH compliant, up to 4 windows visible in predetermined layouts for highest operation safety
User rights	4 "user" levels with password protection and extended user log
Automatic Process control	Start, stop, hold, abort, retry step, next step
Manual control (via password)	Vacuum system and process accessories
Process definition	Actual and background recipes
Process and Alarm management	Up to 300 alarms (including user defined) separated by priority and consequence
Data monitoring	Process run statistics with real time or historic trending. Up to 25 user selected values. User definition of maintenance actions and intervals for system components



### About Us

Evatec offers complete solutions for thin film deposition and etch in the optical and semiconductor markets. Evatec engineers are able to offer practical production advice and solutions from R&D to prototyping and mass production. We recognize that no single technique offers the solution to all problems. With a technology portfolio including standard and enhanced evaporation solutions as well as sputter, we are ready to offer sampling services and custom engineering solutions to meet our customers individual needs.

We provide sales and service through our global network of local offices. For more information visit us at [www.evatecnet.com](http://www.evatecnet.com) or contact our head office.

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## System and process controller



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Keeping your whole system on track

With full automation through pump down, process & vent, Khan is an advanced system and process control platform for Evatec's MSP and BAK Batch Tools. Khan puts you firmly in control of thin film deposition and etch processes for optics, optoelectronics & semiconductor.

Easy to configure and update through the life of your coater, Khan is based around a standard industrial server. Simple architecture and robust hardware ensure KHAN will serve you well in the future whatever new process sources and layer sequences you need.



Control for up to 5 evaporation or sputter sources simultaneously

## Protecting your production

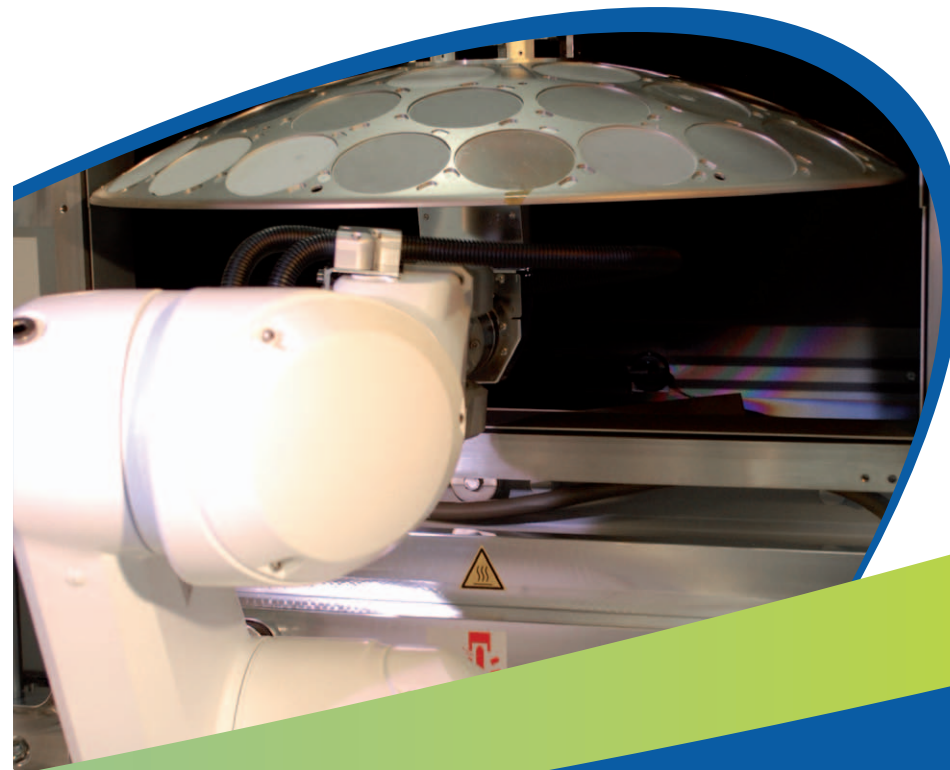
Field Proven - more than 300 Khan systems installed

Define your own process limits

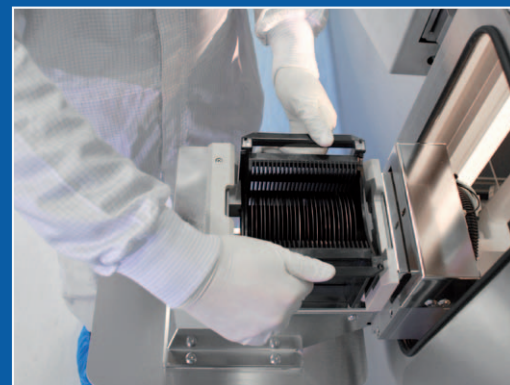
Track trends in key process parameters

# Semiconductor

Full wafer traceability



Seamless integration of external components like wafer "Autoload"



Khan delivers complete process run statistics how and where you want them. System status information and real time trending in formats compliant with SEMATECH standards is available, displaying a choice of up to 6 out of 25 user defined process values, and historic values can be stored and downloaded. Host computer connections are available via serial interface or Ethernet using SECS II or GEM protocols.

Standard Software extensions for RGA modules, wafer barcode readers, or Evatec's front end robot handling system ensure Khan's capabilities easily meet the needs of modern wafer fabs.

**Power Devices** MEMS **LEDs**  
**Sensors** **Telecoms** **Photovoltaics**

# OPTICS

Freedom to manage your processes

Enjoy the flexibility to run up to five deposition sources plus ion or plasma sources simultaneously. Control by constant power or rate and integrate optical monitoring or multiple quartz heads for co-deposition processes.

Evatec's unique process recipe generator enables integration from your thin film design software all the way to recipe download in Khan and offers you a choice of end point strategies.

Recipe handling in "Windows" gives freedom to manage unlimited files according to your preferences and options for "global" or "custom" file changes allow key parameters like rate and thickness in recipe modules across all or a user defined selection of recipes to be changed simultaneously.



Six way quartz and broadband optical monitoring



Plasma sources for enhanced layer properties



Single quartz for co-evaporation processes

**AR Coatings** **Beam Splitters**  
Bandpass & Notch Filters **Laser Mirrors**