

# Corial 300 Series



**300S**  
**360RL**  
**360IL**  
**D350**  
**D350L**

**RIE, ICP, ICP-CVD & PECVD Modules**

**COMPOUND SEMICONDUCTORS | DIELECTRICS | METALS | SILICON**

# Your partner in plasma processing. Today and Tomorrow.

CORIAL is a leading provider of plasma etch and deposition process solutions and equipment which contributes to innovation in wafer processing for the semiconductor and microelectronic industries.

CORIAL addresses a range of end-market applications including MEMS, LEDs & OLEDs, power devices, advanced packaging, failure analysis, and wireless devices.

## CORIAL at your service

1. More than 30 years experience in processing:
- Silicon & Silicon Compounds

■ III-V & II-VI Compounds

■ Metals & Dielectrics
2. Local support around the globe through a global network of offices and agents
3. Versatility & flexibility of equipment that grow in capability as you do

## The Corial 300 Series – maximum flexibility and potential for growth




Designed for the 24/7 production environment, the Corial 300 series drive down your production costs on 2, 4, and 6 inch substrates, without compromise on process performance or equipment reliability.

Simple exchange of shuttle type allows rapid exchange between substrate sizes in production.

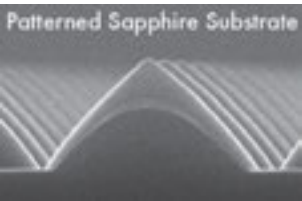
Equip the platforms with PECVD capability for deposition of pinhole free dielectrics with precise film stress control or ICP-RIE technology for etch processes with precise control of feature profile and selectivity.

### Corial 300 Series features:

- **Flexibility in substrate size:** Swap easily between 2, 4, or 6 inch substrates as production demands
- **Flexibility in process technology:** ICP, RIE, ICP+RIE or PECVD
- **Flexibility in substrate handling:** Direct load to reactor manually or auto carrier “shuttle” transfer via vacuum load lock
- **Minimum reactor maintenance:** Reactors for contamination free processing with in situ plasma cleaning for reduced reactor maintenance. Simple change of process according to production demands without memory effects.
- **Enhanced uptimes:** Robust pumping, reactor designs, shuttle designs and control systems for uptimes >95%

Find the right tool for you					
	RIE		RIE, ICP and ICPRIE	PECVD	
System	300S	360RL	360IL	D350	D350L
Loading Capacity	RIE: 27x2 – 9x3” – 7x4” – 3x6” – 1x8” ICP : 23x2” – 9x3” – 7x4” – 3x6” – 1x8”			27x2” – 12x3” – 7x4” – 3x6” – 1x8”	
Substrate handling	Direct loading	Preloaded carrier – transfer through load lock		Preloaded shuttle	Preloaded shuttle – transfer through loadlock
Silicon compounds and polymer etching	■ ■ ■	■ ■ ■	■ ■ ■		
Metal etching with Fluorinated / Chlorinated chemistry / sputter-etch	■ ■ ■ / – / ■ ■ ■	■ ■ ■ / ■ ■ ■ / –	■ ■ ■ / ■ ■ ■ / –		
III-V Compounds Etching		■ ■ ■	■ ■ ■		
III-V Compounds Etching (low damage)			■ ■ ■		
Cr photomask (up to 7”x7”)	□	■ ■ ■			
High Temp dep (SiO2, Si3N4, aSi-H, SiC)				120°C – 320°C	
Low Temp dep (SiO2, Si3N4, aSi-H, SiC)				Up to 150°C	

■ ■ ■ Preferred application    □ Possible application    – Not applicable



Patterned Sapphire Substrate for HBLED



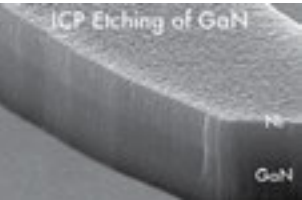
High aspect ratio Si etching



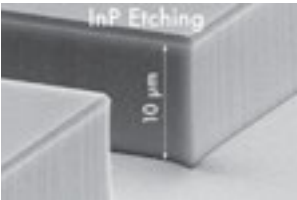
High aspect ratio SiO2 etching



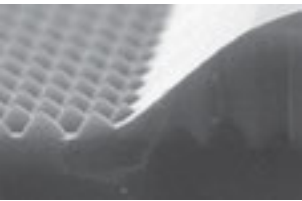
Deep silicon etching



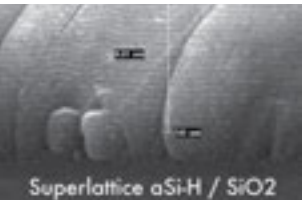
Damage-free GaN etching



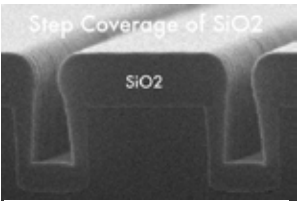
Deep InP etching



GaN Etching for ISO application



PECVD deposition of 60 layer stack – 6nm SiO2 then 4nm aSi-H in same recipe



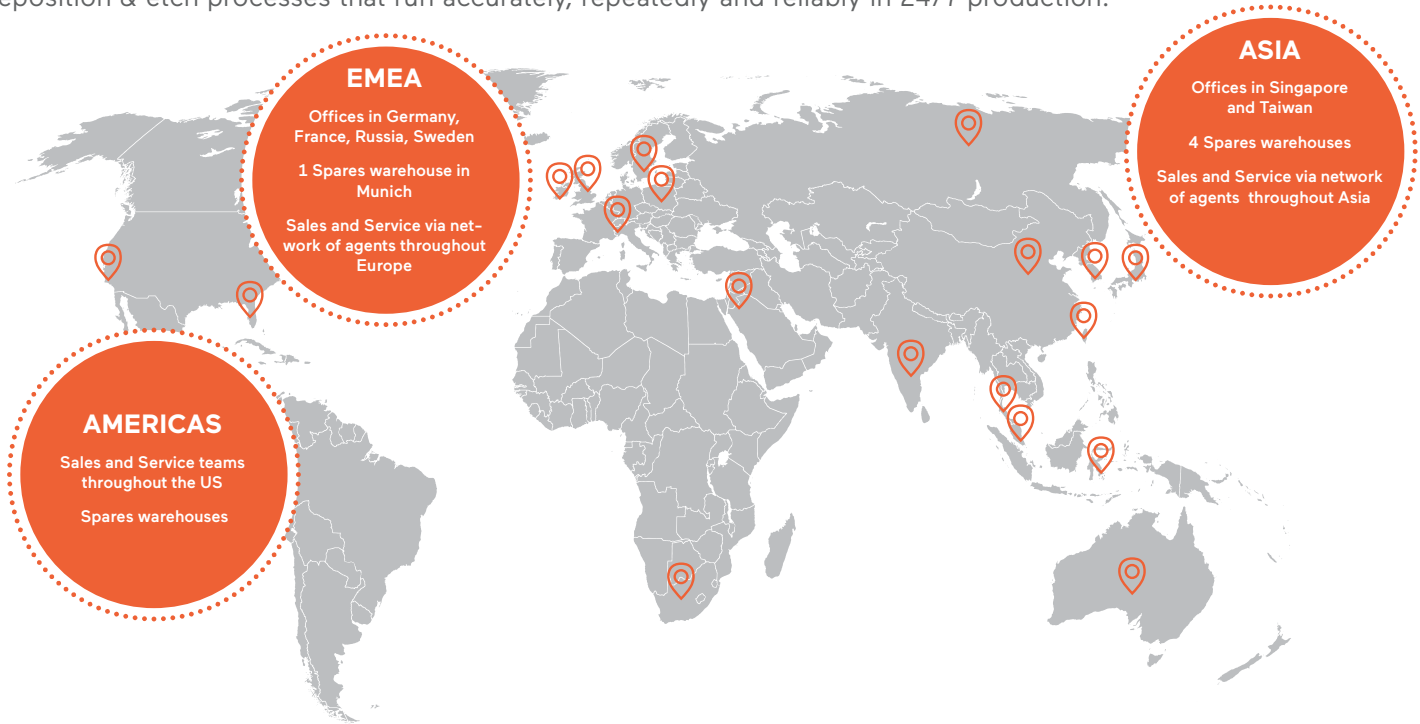
Step coverage of SiO2

# COUNT on us everywhere

Our sales and service network grows as our business expands around the globe. With support available from our partners in USA, Russia, China, India, Israel, Taiwan, Korea, Singapore and around Europe you are never far away from CORIAL know-how and our global Plasma-Therm/CORIAL sales and service team.

Remote system access for systems check and operation and even download of processes direct to your machine through our Virtual Private Network (VPN) mean short response times, efficient service and rapid development of new processes in partnership with CORIAL process expertise in France.

Our applications lab is equipped with tools and a whole range of characterisation techniques to help you develop deposition & etch processes that run accurately, repeatedly and reliably in 24/7 production.



## About us

With more than 30 years experience in delivering custom plasma deposition and etch systems, the CORIAL management and its team is based at Grenoble, just 1 hour away from the international airport of Geneva.

We design, build and test standard or custom platforms according to customer request. Contact us to hear about the latest updates on our products, services and global network.

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