

# Corial 200 Series



**200FA**  
**200S**  
**200R**  
**210RL**  
**200I**  
**210IL**  
**210D**  
**D250**  
**D250L**

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

**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

- More than 30 years experience in processing:
  - Silicon & Silicon Compounds
  - III-V & II-VI Compounds
  - Metals & Dielectrics
- Local support around the globe through a global network of offices and agents
- Versatility & flexibility of equipment that grow in capability as you do

## The Corial 200 Series – versatile etch & deposition systems for R&D and production up to 200 mm

One common platform – but a whole host of handling and processing options makes the Corial 200 Series the perfect choice for R&D, development or production on substrate sizes up to 200 mm.

Choose a module from the Corial 200 Series confident in the knowledge that your tool will deliver damage free processing with the highest repeatability over a number of processes.

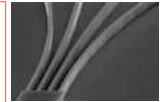
The modules from the Corial 200 Series can be expanded with more gas lines and processes later, and your processes can be scaled up to Corial 300 Series platforms for higher throughputs or larger substrate sizes.

### Corial 200 Series features:

- Flexibility in process technology:** RIE, ICP, ICP+RIE, ICP-CVD, or PECVD modules based on one common platform.
- Flexibility in process chemistry:** Run fluorinated and/or chlorinated chemistries in the same recipe without cross contamination.
- Flexibility in substrate size:** Swap easily between 2, 4, 6, or 8 inch substrates.
- Flexibility in substrate handling:** Select between 3 options depending on chemistry and throughput requirements: direct load, preloaded shuttle, or preloaded shuttle with load-lock.
- Minimum reactor maintenance:** Reactors for contamination free processing with in situ plasma cleaning for reduced reactor maintenance.
- Software that puts you in control:** Modules can be used in one of two ways: continuous wave plasma, or pulsed plasma processing.

Find the right tool for you										
	RIE		RIE			RIE, ICP or ICP+RIE		ICP-CVD	PECVD	
System	200FA	200S	200R	210RL	200I	210IL	210D	D250	D250L	
Loading capacity	Die (to full wafer)		Wafer fragments – 7x2 – 3x3 (RIE) – 1x3” (ICP) – 1x4” – 1x6” – 1x8”				Single wafer up to 6”	Wafer fragments – 7x2” – 3x3” – 2x4” – 1x6” – 1x8”		
Upgrade potential Gas lines / Loadlock / ICP	YES / NO / NO	YES / NO / NO	YES / YES / YES	YES / - / YES	YES / YES / -	YES / - / -	YES / - / -	YES / YES / NO	YES / - / NO	
Substrate handling	Direct loading	Direct loading	Preloaded shuttle	Preloaded shuttle – transfer through loadlock	Preloaded shuttle	Preloaded shuttle – transfer through loadlock	Preloaded shuttle – transfer through loadlock	Preloaded shuttle	Preloaded shuttle – transfer through loadlock	
Silicon compounds and polymer etching	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Metal etching with Fluorinated / Chlorinated chemistry / sputter-etch		<input type="checkbox"/> / - / <input type="checkbox"/>	<input checked="" type="checkbox"/> / - / <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> / <input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / - / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input checked="" type="checkbox"/> / <input type="checkbox"/>				
III-V Compounds Etching				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
III-V Compounds Etching (low damage)						<input checked="" type="checkbox"/>				
II-VI Compounds Etching				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Hard materials (sapphire, quartz, etc)						<input checked="" type="checkbox"/>				
Failure Analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
High Temp dep (SiO <sub>2</sub> , Si <sub>3</sub> N <sub>4</sub> , aSi-H, SiC)								120°C – 320°C		
Low Temp dep (SiO <sub>2</sub> , Si <sub>3</sub> N <sub>4</sub> , aSi-H, SiC)								Up to 150°C	Up to 150°C	

Preferred application     Possible application     – Not applicable



ICP etch of InP with high aspect ratio



High aspect ratio etching of Si



Superconductive aSiH / SiO<sub>2</sub>



PECVD deposition of 60 layer stack – 6nm SiO<sub>2</sub>, then 4nm aSi-H in same recipe



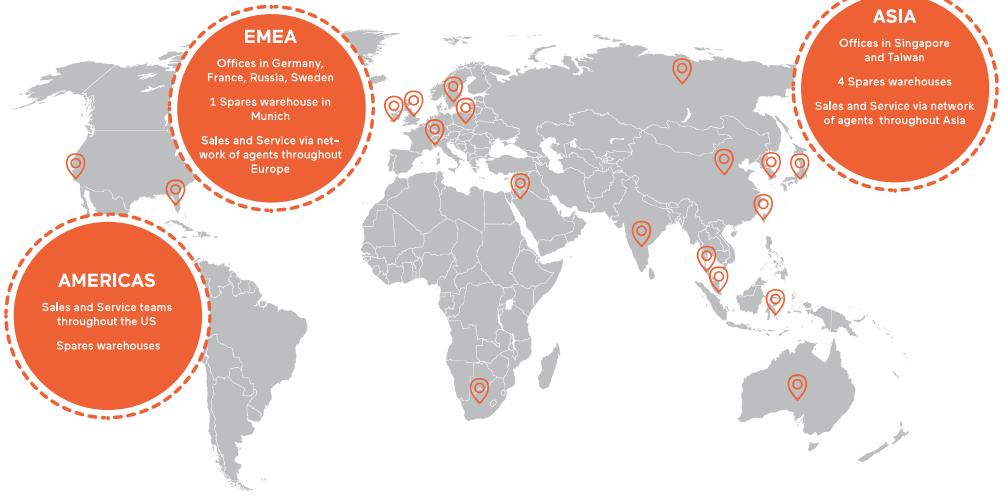
Failure Analysis- Dielectric removal on die, wafer or packaged die

# 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 teams.

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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