



Diffusion & Cleans

Key Features

- › SPC-controlled stable industry-standard high-volume manufacturing equipment set
- › World-class 200mm 65nm technology node-capable tool set
- › High and partial pressure oxidation and anneal capability
- › Flash, spike & rapid thermal anneal capability for advanced transistor development
- › High-quality oxide gate and ONO (oxide/nitride/oxide) dielectric capability for advanced transistors/NVM cells
- › Low-temperature silicon-germanium deposition for MEMS applications

SVTC Technologies is an independent semiconductor process-development foundry that enables the development and commercialization of innovative semiconductor-based technologies and products in an accelerated, cost-effective and IP-secure way.

SVTC Technologies offers a broad range of tools from leading equipment manufacturers for diffusion, chemical vapor deposition, rapid thermal processing and wet etch/clean. Located at both our San Jose, California, and Austin, Texas, facilities, these tools contribute to faster development cycles.



Diffusion, Chemical Vapor Deposition & Rapid Thermal Processing

Capability	Tools	FE/BE	Location
Oxidation (dry & wet)	Aviza 7000 Vertical	FE	San Jose
Oxidation (selective)	Aviza AVP 85XX Vertical	FE	San Jose
Amorphous Silicon or Poly Deposition	Aviza 7000 Vertical	FE	San Jose
Doped Amorphous or Poly Silicon Deposition	Aviza 7000 Vertical; Axcelis GSD	FE	San Jose
Low Pressure Chem. Vapor Deposition nitride deposition	Aviza 7000 Vertical LPCVD	FE	San Jose
ONO Deposition	Aviza 85XX AVP Vertical	FE	San Jose
Rapid Thermal Process (RTP) Oxidation	AG8800 RTP	FE	San Jose
Rapid Thermal Process - Anneal, Co Silicidation & Densification	AG8800 RTP	FE	San Jose
Silicon Germanium Deposition	Aviza 85XX AVP Vertical	BE	San Jose
Oxidation: Atmospheric Steam/Dry/Anneal	BTU/BRUCE Horizontal Furnace	FE	Austin
Diffusion: ATF FG/ N2 An Atmospheric FG	BTU/BRUCE Horizontal Furnace	FE	Austin
RTP Thick & thin nitride dep (silane and DCS)	AMAT Centura (Xt lamp based RTP& SINgen)	FE	Austin
RTP ISSG (wet oxide), RTO (dry oxide), RTP O2/N2 Anneals	AMAT Centura (MOD II lamp based RTP)	FE	Austin
RTP poly/ AMSI/ epi (doped with Ge or P)	AMAT Centura (Xe+ lamp based RTP& POLYgen)	FE	Austin
RTP Thick and thin nitride deposition, NH3 & N2 Anneals	AMAT Centura cluster - RTP Nitride	FE	Austin
RTP Undoped & doped Poly/AMSI, EPI, SiGe or Ge dep, H2 Anneals	AMAT Centura cluster - RTP Epi	FE	Austin
RTP ISSG (wet oxide), RTO (dry oxide), RTP O2/N2 Anneals	AMAT Centura cluster - RTO/N	FE	Austin
RTP MOCVD (was Hf, currently Zr), High K O2 Anneals	AMAT Centura cluster - RTP MOCVD	FE	Austin
RTP Undoped Ox: Steam or Dry Ox & Anneal	SVG-THERMCO Vertical Furnace: Steam/Dry	FE	Austin
Low Pressure Chem. Vapor Deposition - AmorSi & POLY Si	SVG-THERMCO Vertical Furnace: LPCVD Poly/Amor	FE	Austin
Low Pressure Chem. Vapor Deposition - TEOS	SVG-THERMCO Vertical Furnace: LPCVD TEOS	FE	Austin
Low Pressure Chem. Vapor Deposition - Silicon Nitride	SVG-THERMCO Vertical Furnace: LPCVD Silicon Nitride	FE	Austin
High Pres. Oxidation & Anneal	POON SANG Vertical Furnace: High Pres. An & Ox	FE	Austin
Diffusion: Atmospheric FG or N2 An. Cu only	BTU/BRUCE Horizontal Furnace	BE/CU	Austin
Metal Anneal and Low K Cure. 4% max H2 in N2	TEL a-8SE-E Vertical Furnace	BE/CU	Austin

Wet Etch/Clean

Capability	Tools	FE/BE	Location
Frontend Oxide Etch/strip HF w or w/o SC1 + SC2	FSI Mercury Wet Bench (HF, SC1, SC2)	FE	San Jose
Frontend Wet resist strip (H2SO4 / H2O2 w or w/o SC1)	Universal Plastics & Akrion Wet Benches (H2SO4/H2O2)	FE	San Jose
Frontend Oxide Etch/strip HF w or w/o SC1	Universal Plastics & Akrion Wet Benches (HF)	FE	San Jose
Frontend Nitride etch/strip	Universal Plastics & Akrion Wet Benches (H3PO4)	FE	San Jose
Post metal etch strip polymer removal (EKC265 Solvent)	Semitool SST 8200 (EKC265)	BE	San Jose
Buffered Oxide Etch Masked Etches	Universal Plastics wet bench (BOE 80:1)	FE	San Jose
Unreacted Titanium Etch (silicidation)	Universal Plastics wet bench (Proprietary chemical)	FE	San Jose
HF/DI03 & ultra dilute H2SO4 cleans	Semitool Raider-Clean 2	FE/BE	San Jose
Back-side Film Removal & Clean	SEZ 203 spin processor	FE/BE	San Jose
SPM, SC1, SC2, Dilute HF for oxide etch, KOH	Mercury Spray Processor 2	FE	Austin
Vapor HF Oxide Etch	Mercury Spray Processor 2	FE	Austin
Pre-gate cleans, SPM, 200:1HF oxide etch, SC1, SC2, O3 rinse	DNS Wet Etch FC82-IL	FE	Austin
Backend Post ash cleans, Post Al etch polymer cleans	SCP Global Technologies 8400	BE	Austin
Hot H3PO4 for SiN etch, Hot KOH	SCP Global Technologies 8400	BE	Austin
Backside Clean (CU)	SEZ 203 (HIGH USE)	FE/BE	Austin

FACT SHEET



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