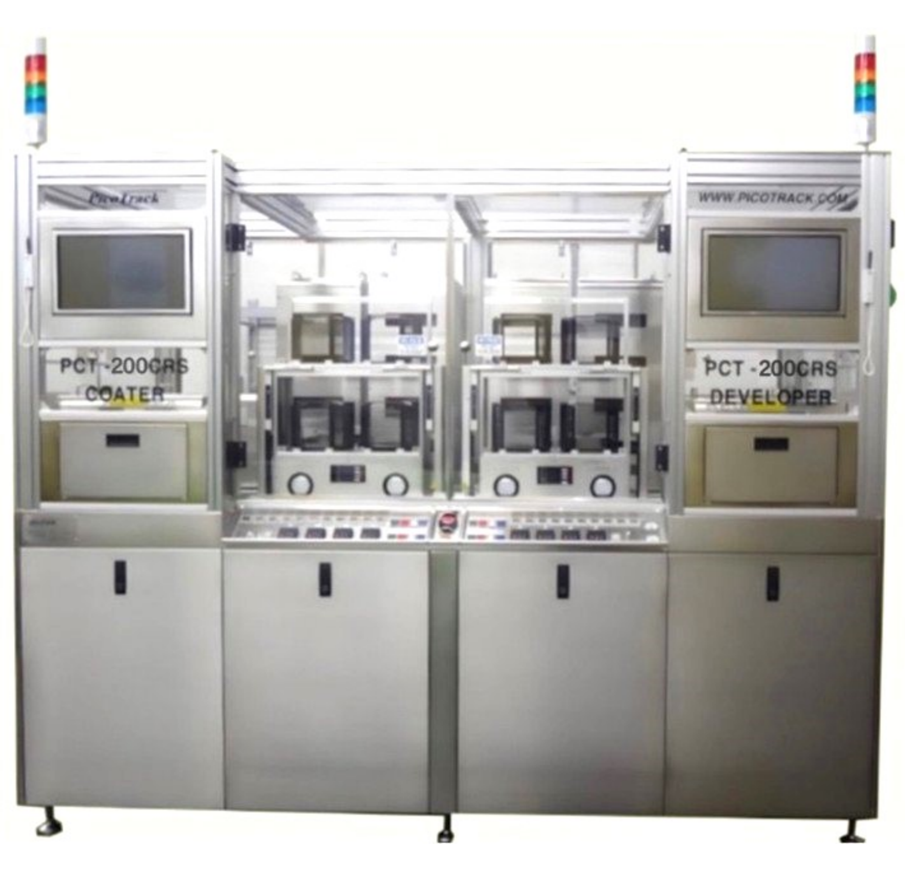
www.picotrack.com

309 Laurelwood Rd #21
Santa Clara, CA 95054
Main: (408)988-7000
Fax: (408)988-7091

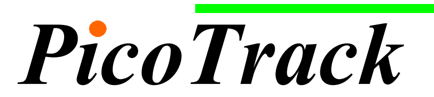
PCT-200CRS TRACK SYSTEM

MASS PRODUCTION WITH DUAL TRACKS (2 COATERS, 2 DEVLOPERS) TOOL SET

Please contact Sales sales@picotrack.com for more information



Coater Module	Developer Module	VPO Module	HPO Module	CP Module



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<table>
<tr><th>Track System Specification</th><th>Description</th></tr>
<tr><td>System designed</td><td>US Standard System</td></tr>
<tr><td>System Configuration

(*Configuration available upon request)</td><td>
<table>
<tr><td rowspan="4">COATER
2</td><td>VPO</td><td>VPO</td><td>HPO</td><td>HPO</td><td rowspan="4">DEV
2</td></tr>
<tr><td>HPO</td><td>HPO</td><td>HPO</td><td>HPO</td></tr>
<tr><td>CP</td><td>CP</td><td>CP</td><td>CP</td></tr>
<tr><td>CP-CENT</td><td>CP-CENT</td><td>CP-CENT</td><td>CP-CENT</td></tr>
<tr><td colspan="3">TRACK #1 SHUTTLE ARM</td><td colspan="3">TRACK #2 SHUTTLE ARM</td></tr>
<tr><td rowspan="2">COAT
1</td><td>SEND</td><td>SEND</td><td>SEND</td><td>SEND</td><td rowspan="2">DEV
1</td></tr>
<tr><td>REC</td><td>REC</td><td>REC</td><td>REC</td></tr>
</table>
</td></tr>
<tr><td>System dimension</td><td>Length: 108" ; Width: 50" ; Height: 90"</td></tr>
<tr><td>Wafer size (workable dual size)</td><td>Up to 8" (200mm) or 6" & 8" auto conversion</td></tr>
<tr><td>Wafer shape</td><td>Round/Square/Rectangular/Triangle/Special</td></tr>
<tr><td>Wafer material</td><td>Silicon/Sapphire/GaAs/ Ceramic…</td></tr>
<tr><td>Wafer sensor</td><td>Optical sensor mapping</td></tr>
<tr><td>System controller</td><td>PC & PLC Controller with Windows OS based</td></tr>
<tr><td>Chemical canister cabinet</td><td>Solvent (EBR, HMDS, Cleaning…), developer liquid</td></tr>
<tr><td>Pumps cabinet</td><td>Photoresist pumps (IDI, Cybor..), dispenser unit, & photoresist bottles</td></tr>
<tr><td>Indexer wafer cassettes capacity</td><td>4 or 8 (available upon request)</td></tr>
<tr><td>Shuttle Robot Arm</td><td>2 Robot arm and dual end effectors</td></tr>
<tr><td>System Fan Filter Unit (FFU)</td><td>optional</td></tr>
<tr><td>System SECs/GEM</td><td>optional</td></tr>
<tr><th>Coater</th><th>2 modules</th></tr>
<tr><td>Catch Cup Set</td><td>Up/down motion</td></tr>
<tr><td>Spindle Unit</td><td>Fixed position</td></tr>
<tr><td>Maximum spin speed</td><td>7000 rpm</td></tr>
<tr><td>Spin motor type</td><td>Servo</td></tr>
<tr><td>Spin speed accuracy</td><td>± 3 rpm</td></tr>
<tr><td>Acceleration range</td><td>0-50000 rpm/sec</td></tr>
<tr><td>Dispense arm accuracy</td><td>± 0.1 mm</td></tr>
<tr><td>Wafer centering</td><td>± 0.1 mm</td></tr>
<tr><td>Dispense arm motion control</td><td>Stepper motor drive and rotation</td></tr>
<tr><td>Dispense arm # 1 & nozzles</td><td>3x or more (3/16" or 1/4" OD) (Standard)</td></tr>
<tr><td>Dispense arm # 2 & nozzles</td><td>3x or more (3/16" or 1/4" OD) (Optional)</td></tr>
<tr><td>Dispense method</td><td>Static, radial and traverse</td></tr>
<tr><td>Pre-dispense function</td><td>Yes</td></tr>
<tr><td>Top/Bottom EBR</td><td>Yes</td></tr>
<tr><td>Catch-cup rinse(CCR)</td><td>Optional</td></tr>
<tr><td>Cleaning tip nozzle</td><td>Optional</td></tr>
<tr><td>Humidity & Temp. control</td><td>Optional</td></tr>
<tr><td>Photoresist temperature control</td><td>Optional (≤ 1°C; 10-50°C range)</td></tr>
<tr><td>Coating type</td><td>Regular, SOG, PG, and Spray (available upon request)</td></tr>
<tr><th>Developer</th><th>2 modules</th></tr>
<tr><td>Catch Cup Set</td><td>Up/down motion</td></tr>
<tr><td>Spindle Unit</td><td>Fixed position</td></tr>
<tr><td>Maximum spin speed</td><td>7000 rpm</td></tr>
<tr><td>Spin motor type</td><td>Servo</td></tr>
<tr><td>Spin speed accuracy</td><td>± 3 rpm</td></tr>
<tr><td>Acceleration range</td><td>0-50000 rpm/sec</td></tr>
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Spin direction	Clockwise (+) & counter clockwise (-)
Dispense arm motion control	Stepper motor drive and rotation
Dispense arm accuracy	± 0.1 mm
Wafer centering tolerance	± 0.1 mm
Dispense arm # 1 nozzles	1 Spray+ 1 Stream or 2 spray+ 2 stream (Standard)
Dispense arm # 2 nozzles	1 Spray+ 1 Stream or 2 spray+ 2 stream (Upon request)
Negative developer nozzles	Cone or fan spray with N2 air assist (Upon request)
Developer dispense type	Stream, Puddle, Fan spray, Cone spray…
Dispense method	Static, radial and sweep
DI water top and back side rinse	Yes
N2 Airing back side ring	Yes
N2 Blow-off top nozzle	Optional
Developer liquid temperature controller	Optional (≤ 1°C; 10-50°C range)
Vapor Prime Ovent (VPO)	**2 modules (Stack up)**
VPO block type	Aluminum anodized with vacuum slots
VPO Temperature controller	Watlow P.I.D with over heating protection
Temperature thermal probe	RTD or TC
Temperature range	Up to 200°C, Δt: 50°C ≤ 200s
Temperature uniformity	± 1°C (25-15°0C), ± 2°C (151-200°C)
HMDS prime method	Fume shower nozzles on top by pressurized N2 with bubbler
Wafer contact angle	≥ 65° on prime silicon wafer
Contact angle uniformmity	≤ 1.5° on prime base silicon wafer
Wafer Carrier	3 pins controlled by stepper motor
Bake method	Contact, vacuum & purge bake
Hot Plate Oven (HPO)	**6 modules (Stack up)**
HPO block type	Aluminum anodized with vacuum slots or proximity
HPO Temperature controller	Watlow P.I.D with over heating protection
Temperature thermal probe	RTD or TC
Temperature range	25-250°C, Δt: 50°C ≤ 200s (>250°C option)
Temperature uniformity	± 1°C (25-150°C), ± 2°C (151-250°C)
Wafer Carrier	3 pins controlled by stepper motor
Bake method	Contact/ Proximity bake/ or fixed proximity
Chill Plate & Centering (CP-CENT)	**8 modules (Stack up)**
Chill Plate block type	Aluminum anodized with vacuum slots or proximity
Chill Plate Temperature control	House cooling water with flowmeter (18°C to 30°C)
Chill method	Contact or proximity
Cooling Water Temp. controller	Optional
Wafer Carrier	3 pins controlled by stepper motor or air cylinder
Wafer Centering	Integrated