

Stainless Steel Cassettes

Yield Engineering Systems (YES) stainless steel cassettes are specifically designed for use with the YES-450PB Series high temperature vacuum cure ovens. They are ideal for polyimide bake, BCB cure, copper anneal, as well as other cure processes. YES cassettes can be used throughout the clean room in semiconductor fabrication processes where plastic or quartz cassettes are inappropriate or do not perform as well.

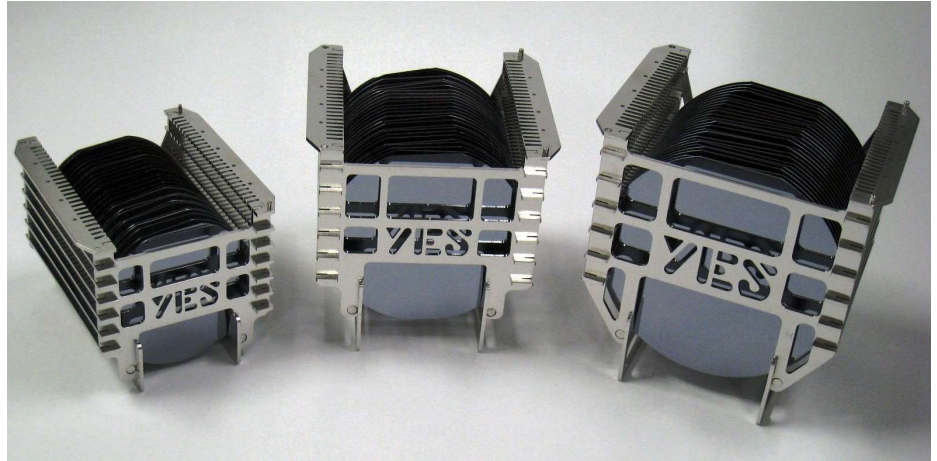
YES cassettes are designed to SEMI specifications and mate to most plastic cassettes, so they can be used on all automated vertical or horizontal transfer systems. (Note: our low profile cassettes, designed for easier manual loading of cassettes inside YES systems, are not compatible with automated vertical transfer systems). All cassette designs, including low profile, are compatible with manual push or slide transfer.

Designed for Performance

YES cassettes are designed to achieve accurate wafer support with minimal mass. This allows superior temperature performance in YES-450PB Series cure systems. Temperatures remain uniform throughout heat up and cool down applications minimizing hot/cold spots due to heat sinking. Cassettes are placed with the wafers vertically in YES-450PB Series ovens to facilitate the laminar flow process. The result is a better, more uniform process.

Why Stainless Steel vs. Quartz?

The outer surface of a quartz cassette vitrifies (changes over time due to heat). This causes two problems: particle introduction increases and cassettes become more brittle with each process run, until eventually the boat (cassette) breaks. When a quartz cassette breaks inside a process oven, it creates particle issues that are time consuming and costly to fix. Stainless steel cassettes do not encounter these problems.



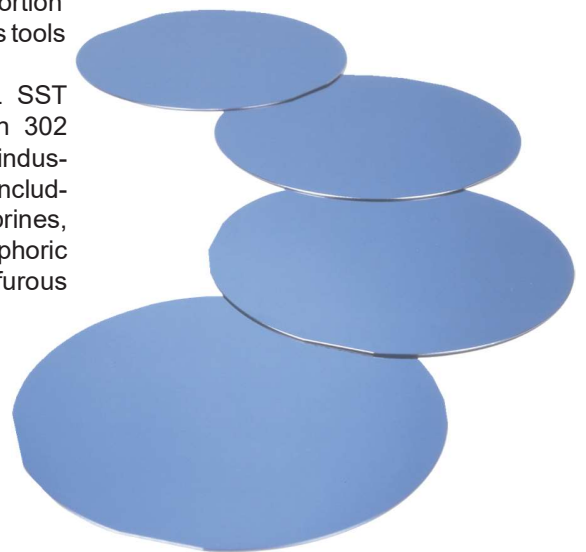
Also, the quartz boat is an insulator. When wafers become statically charged there is nowhere for the charge to go and the charged wafers begin to attract particles. Stainless steel cassettes are a conductor which allows the static charge on the wafer to dissipate when placed on a grounded surface.

YES Cassette Specifications

- All 316L SST welded, electro polished construction (no screws or fasteners).
- Outside dimensions similar to SEMI standard plastic process carriers.
- Temperature: Although 316L SST is suitable up to 760° C, recommended continuous operating temperature without causing distortion is 500° C (YES-450PB Series tools operate up to 450°C).
- Corrosion Resistance: 316L SST offers better resistance than 302 and 304 SST. Resists many industrial chemicals and solvents including - sodium and calcium brines, hypo chlorite solutions, phosphoric acid, sulfite liquors and sulfurous acids.

Benefits

- No particles
- Automated or manual transfer
- Uniform substrate temperature processing
- Best temperature performance for YES-450PB Series ovens
- Lightweight design
- Use on all automated vertical and horizontal transfer systems
- Designed to SEMI specifications



Available Cassette Sizes

25-Wafer Cassettes (Part Number)	
2 inch (710-12206-01)	150mm short (710-12124-01)
3 inch (710-12208-01)	200mm (710-12215-11)
100mm (710-12210-01)	200mm short (710-12220-11)
125mm (710-12212-01)	300mm (710-12217-01)
150mm (710-12118-11)	
13-Wafer Cassettes	
300mm	

Available Cassette Handler Sizes

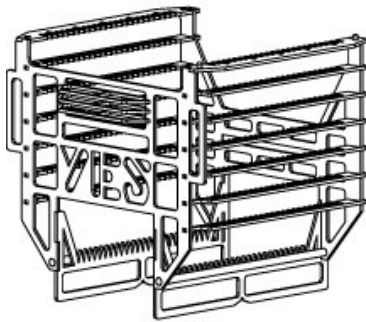
2 inch (710-12207-01)	150mm (710-12214-01)
3 inch (710-12209-01)	200mm (710-12216-01)
100mm (710-12211-01)	300mm (710-12218-01)
125mm (710-12213-01)	

Contact Us

YES has been designing and manufacturing innovative process equipment since 1980.

Call 1-925-373-8353
(worldwide) or
1-888-YES-3637
(US toll-free)

for more information or visit us online at www.yieldengineering.com.



Illustrations:
Partial measurements of the 200mm cassette and handler sizes.

