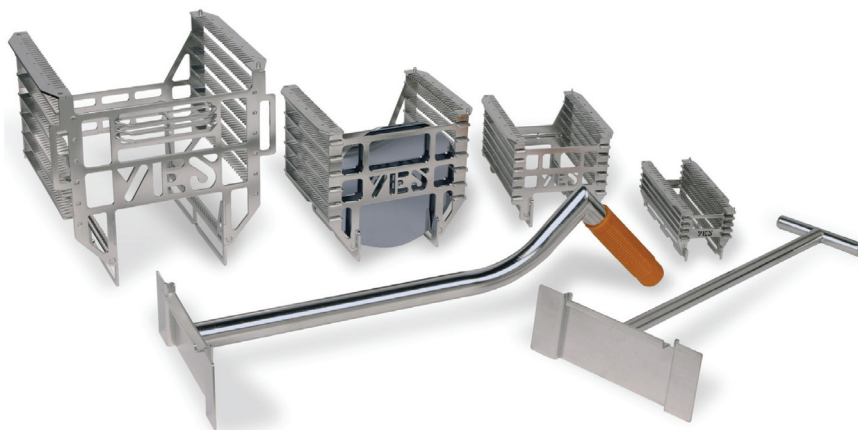




# Stainless Steel Cassettes

Yield Engineering Systems (YES) stainless steel cassettes 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, may not be compatible with all 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 for superior temperature performance. 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 our 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

- 316L SST welded, electro polished construction (no screws or fasteners).
- Outside dimensions similar to SEMI standard plastic process
- Temperature: Suitable for continuous operating temperature up to 500° 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
- Lightweight design
- Use on all automated vertical and horizontal transfer systems
- Designed to SEMI specifications

YES cassettes are offered in all standard sizes and specialty measurements as well. Our narrow and low profile widths can assist with fitting more cassettes in a chamber. A low profile cassette has a reduced height and a narrow cassette has a reduced depth.

## Available Cassette Sizes

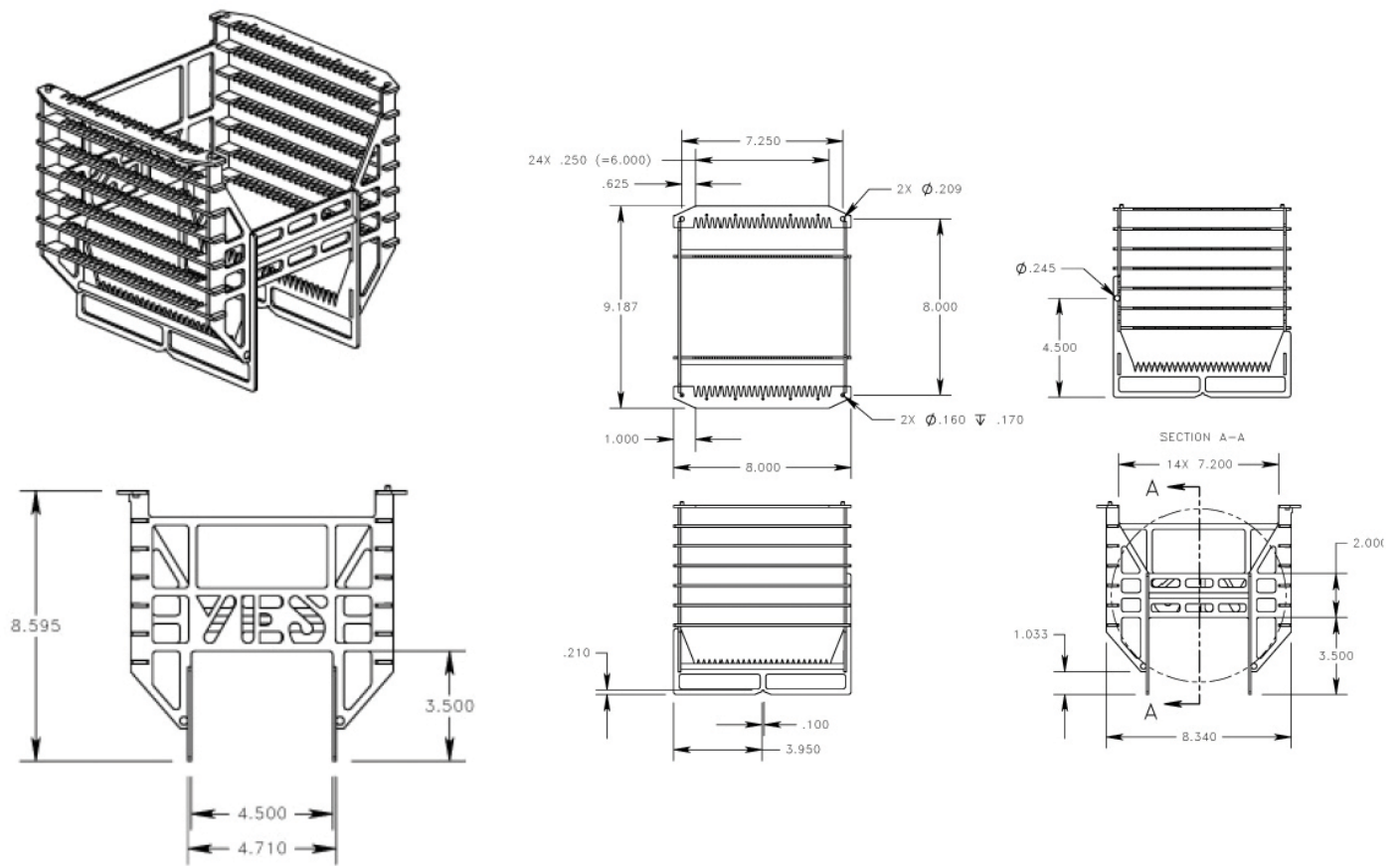
25-WAFER CASSETTES (PART NUMBER)		13-INCH WAFER CASSETTES	CASSETTE HANDLER SIZES		
2 inch	(710-12206-01)	300 mm	(710-12219-01)	2 inch	(710-12207-01)
3 inch	(710-12208-01)			3 inch	(710-12209-01)
3 inch	(710-12208-01)			100 mm	(710-12211-01)
125 mm	(710-12212-01)			125 mm	(710-12213-01)
150 mm	(710-12118-11)			150 mm	(710-12114-01)
150 mm low profile	(710-12124-01)			200 mm	(710-12216-01)
200 mm	(710-12215-21)			300 mm	(710-12218-01)
200 mm low profile	(710-12220-11)			Pistol Grip	(820-12445-11)
300 mm	(710-12217-01)				

## Part Number Per Model (for YES ovens)

TOOL	CASSETTE SIZES (PART NUMBERS)			
YES-1224P/ YES-1224 Vapor Deposition	2 inch	(710-12206-01)	150 mm	(710-12118-11)
	125 mm	(710-12212-01)	200 mm	(710-12215-22) (N)
YES-58TA Vacuum Bake/Vapor Prime	2 inch	(710-12206-01)	150 mm	(710-12118-11)
	3 inch	(710-12208-01)	200 mm	(710-12215-21)
	100 mm	(710-12210-11)	300 mm - 13 wafer	(710-12219-01)
	125 mm	(710-12212-01)	300 mm - 25 wafer	(710-12217-01)
YES-310TA Vacuum Bake/Vapor Prime	2 inch	(710-12206-01)	125 mm	(710-12112-01)
	3 inch	(710-12208-01)	200 mm	(710-12215-21)
	100 mm	(710-12210-11)		
YES-PB6-2P-CP Polyimide Cure	2 inch	(710-12206-01)	125 mm	(710-12112-01)
	3 inch	(710-12208-01)	150 mm	(710-12124-21) (LP)
	100 mm	(710-12210-11)		
YES-PB8-2P-CP Polyimide Cure	2 inch	(710-12206-01)	125 mm	(710-12112-01)
	3 inch	(710-12208-01)	150 mm	(710-12118-11)
	100 mm	(710-12210-11)	200 mm	(710-12220-11) (LP)
YES-PB12-2P-CP Polyimide Cure	2 inch	(710-12206-01)	150 mm	(710-12118-11)
	3 inch	(710-12208-01)	200 mm	(710-12215-21)
	100 mm	(710-12210-11)	300 mm - 13 wafer	(710-12219-01)
	125 mm	(710-12212-01)	300 mm - 25 wafer	(710-12217-01)
YES-PB8-2P-CP-HV High Vacuum	2 inch	(710-12206-01)	125 mm	(710-12112-01)
	3 inch	(710-12208-01)	150 mm	(710-12118-11)
	100 mm	(710-12210-11)	200 mm	(710-12220-11) (LP)
YES-LabCoat Small Chamber	2 inch	(710-12206-01)	125 mm	(710-12112-01)
	3 inch	(710-12208-01)	150 mm	(710-122118-11)
	100 mm	(710-12210-11)		

## Illustrations:

Different angles and measurements of the 200mm cassette



## Yield Engineering Systems, Inc.

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

[www.yieldengineering.com](http://www.yieldengineering.com)