

# Specialized Handling Products

*A complete portfolio of 125 mm  
and below wafer handling solutions*



## OVERVIEW

Entegris offers specialized handling products for 125 mm and below wafers including shipping boxes, wafer carriers, storage boxes, handles, specialized carriers, and other accessories. We also provide an extensive portfolio of miscellaneous device carriers, handles, and labware. Extended lead times and minimum order quantities (MOQs) apply.

For more information contact  
Entegris Customer Service at:  
+1 800 394 4083  
customerservice@entegris.com  
[www.entegris.com](http://www.entegris.com)

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*NOTE: STAT-PRO material refers to Entegris' proprietary material blends used in Entegris products. For specific material descriptions corresponding to the STAT-PRO number shown, please see page 44.*

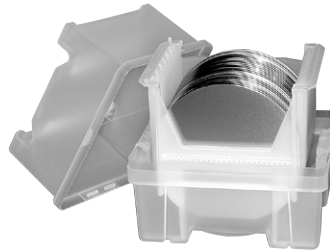
## 125 MM (5") WAFER HANDLING

Entegris offers a complete line of products for handling your 125 mm wafers including wafer shipping boxes and carriers, storage boxes, and other accessories.

### MULTIPLE WAFER SHIPPING BOXES

#### Ultrapak® Series

- Individual horizontal cantilever springs limit wafer rotation to reduce particle contamination and also secure the wafers in the cassette to safeguard against breakage
- Ultrapure polypropylene materials provide a clean shipping environment and assure low levels of condensable inorganics
- Horizontal and vertical robotic pickup flanges on the cassette allow convenient handling
- Center notch track alignment and "H" bar ensure accurate equipment interoperability both vertically and horizontally
- Assembly overall size:  
161 mm × 177 mm × 160 mm (6.4" × 7.0" × 6.3")



- Cassette:  
D1: 14.53 mm (0.57")  
Pitch: 4.76 mm (0.19")  
Overall size: 144 mm × 153 mm × 146 mm  
(5.7" × 6.0" × 5.8")
- Extended lead times and minimum order quantities apply

#### Ordering information

Part number	Material	Description
H9125-0028	High-purity polypropylene	Assembly, shrink-wrapped
H9125-0029	High-purity polypropylene	Assembly, cleaned

## SINGLE WAFER SHIPPERS

### H93 Series

- Holds one wafer facedown contacting only the wafer's edges
- Contains four inserted cushions to retain wafer and minimize particle generation
- Tweezer slots on shipper bottom ease wafer removal
- Stackable for efficient use of storage space
- Large area on lid provides space for labeling
- Pin-in-socket hinge allows shipper to be opened completely without tipping backwards
- Polypropylene replacement cushions available to retrofit existing packages



- Clear polycarbonate material protects wafer and allows visual inspection without opening
- Extended lead times and minimum order quantities apply

### Ordering information

Part number	Overall size (L x W x H)	Description	Material
H93-50-101-1116	152 x 135 x 20.3 mm (6.0" x 5.3" x 0.80")	Shipper	Clear polycarbonate
H93-100A	—	Replacement cushions, package of 100	Polypropylene

### H22 Series

- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Spring retains wafer and minimizes particle generation
- Stackable for efficient use of storage space
- Loose or lock stacking, either tray on tray or cover on tray
- Convenient screw on covers
- Large area on cover provides space for labeling
- Extended lead times and minimum order quantities apply



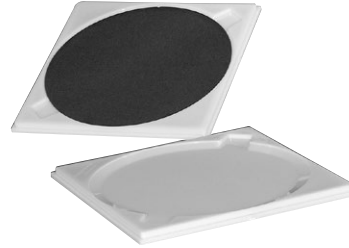
### Ordering information

Part number	Material	Description
H22-50-0615	Tray	Natural polypropylene
H22-501-0615	Cover	Natural polypropylene
H22-502-0615	Spring	Natural polypropylene
H22-50-62C02	Tray	STAT-PRO 150
H22-501-62C02	Cover	STAT-PRO 150
H22-502-62C02	Spring	STAT-PRO 150

**SINGLE WAFER TRAYS**

**H20 Series**

- For internal handling of single wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Tweezer slots on tray bottom ease wafer removal
- Stackable for efficient use of storage space, either tray on tray, or cover on tray
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



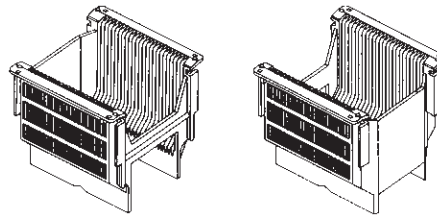
**Ordering information**

Part number	Overall size	Description	Material
H20-4000-01-1415	140 mm sq. (5.5")	Tray	Natural ABS

**WAFER CARRIERS**

**194 Series\***

- Optimum performance for automated equipment
- Open sidewall style
- "H" bar equipment interface
- Locating track notches at the center of the 13<sup>th</sup> pocket
- Pins and holes on the top rail
- Capacity: 25
- D1 dimension: 14.53 mm (0.57")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Available materials: Natural PFA, STAT-PRO 100, blue polypropylene



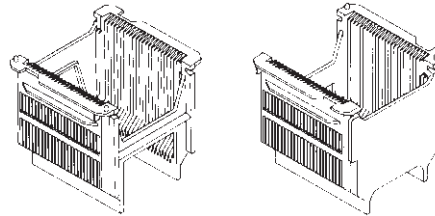
A194-50MB

- Overall size: 143 mm x 152 mm x 146 mm (5.7" x 6.0" x 5.8")
- Extended lead times and minimum order quantities may apply
- See page 6 for ordering information

*\*Significant dimensional differences may exist between different designs and materials within the same wafer carrier series. Please contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com for detailed information on specific products.*

**182 Series\***

- Open sidewall style with wraparound wash slots
- "H" bar equipment interface
- 26<sup>th</sup> slot for identification tag
- Capacity: 25
- D1 dimension: 14.53 mm (0.57")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Overall size: 143 mm x 152 mm x 146 mm (5.7" x 6.0" x 5.8")
- Available materials: Natural PFA, STAT-PRO 1000, STAT-PRO 100, blue polypropylene

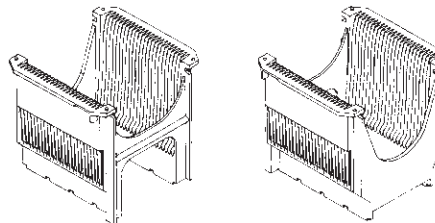


A182-50MB

- Extended lead times and minimum order quantities may apply
- See page 6 for ordering information

**72 Series\***

- Original linear wafer carrier
- Wash openings in sidewall
- "H" bar equipment interface
- Pins and holes on the top rail
- Capacity: 25
- D1 dimension: 14.00 mm (0.55")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Overall size: 142 mm x 152 mm x 146 mm (5.6" x 6.0" x 5.8")
- Available materials: Natural PFA, STAT-PRO 1000, STAT-PRO 100, blue polypropylene

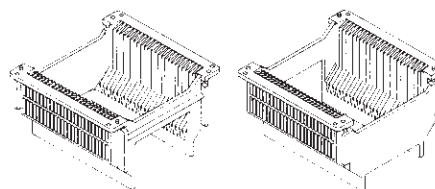


A72-50M

- Extended lead times and minimum order quantities may apply
- See page 6 for ordering information

**190 Series\***

- Optimum performance in centrifugal processing applications
- Low contour, open flow sidewall style
- "H" bar equipment interface
- Pins and holes on the top rail
- Capacity: 25
- D1 dimension: 14.53 mm (0.57")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.40 mm (0.06")
- Overall dimensions:  
A190-50M-0215: 143 mm x 152 mm x 95 mm (5.7" x 6.0" x 3.8")  
A190-50MHJ-0215: 142 mm x 141 mm x 95 mm (5.6" x 5.6" x 3.7")



A190-50M

- Available material: Natural PFA
- Extended lead times and minimum order quantities may apply
- See page 6 for ordering information

*\*Significant dimensional differences may exist between different designs and materials within the same wafer carrier series. Please contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com for detailed information on specific products.*

## Ordering information\*

Part number	End wall configuration	"H" bar end flanges	Compatible boxes	Material	Notes
A194-50MB-0215	Solid, flanges	Yes	E89, E93	Natural PFA	—
PA194-50MB-61C02	Solid, flanges	Yes	E89, E93	STAT-PRO 100	—
PA194-50MB-0603	Solid, flanges	Yes	E89, E93	Blue polypropylene	—
A182-50M-0215	Solid	No	E89, E93	Natural PFA	—
A182-50MB-0215	Solid, flanges	No	E89, E93	Natural PFA	—
A182-50MC-0215	Window, flanges	No	E89, E93	Natural PFA	—
A182-50MU-0215	"U" shape, flanges	Yes	E89, E93	Natural PFA	—
PA182-50M-61C02	"U" shape	No	E89, E93	STAT-PRO 100	—
PA182-50MB-61C02	Solid, flanges	No	E89, E93	STAT-PRO 100	—
PA182-50M-0603	"U" shape	No	E89, E93	Blue polypropylene	Red, green, yellow and natural colors available
PA182-50MB-0603	Solid, flanges	No	E89, E93	Blue polypropylene	Red, green, yellow and natural colors available
PA182-50MC-0603	Window, flanges	No	E89, E93	Blue polypropylene	Red, green, yellow and natural colors available
A72-50M-0215	"U" shape	No	E89, E93	Natural PFA	—
PA72-50M-61C02	"U" shape	No	E89, E93	STAT-PRO 100	—
PA72-50M-0603	"U" shape	No	E89, E93	Blue polypropylene	—
A190-50M-0215	Solid, flanges	No	—	Natural PFA	—

\*Significant dimensional differences may exist between different designs and materials within the same wafer carrier series. Please contact Entegris Customer Service at +1 800 394 4083 or [customerservice@entegris.com](mailto:customerservice@entegris.com) for detailed information on specific products.

## STORAGE BOXES

### E89 Series

- One snap latch or one swing pin latch
- Pin and socket hinges
- Stackable
- Single carrier capacity
- Optional wafer cushion
- Compatible carriers: 194 series, 182 series, "M" style 72 series
- Overall size: 193 mm × 180 mm × 165 mm (7.6" × 7.1" × 6.5")



*E89-102*

- Available materials: STAT-PRO 100, blue polypropylene
- Extended lead times and minimum order quantities may apply
- See below for ordering information

### E93 Series

- Two snap latches, one swing pin latch or three swing pin latches
- Pin and socket hinges
- Stackable
- Two carrier capacity
- Optional wafer cushion
- Compatible carriers: 194 series, 182 series, "M" style 72 series
- Overall size: 148 mm × 180 mm × 165 mm (7.8" × 13" × 6.5")



*E93-102*

- Available materials: STAT-PRO 100, blue polypropylene
- Extended lead times and minimum order quantities may apply
- See below for ordering information

### Ordering information

Part number	Latch	Optional cushion	Optional envelopes	Material
E89-101-61C02	Single snap	E95-1-0815	E96-2-1613 E96-2P-21A15	STAT-PRO 100
E89-101-0603	Single snap	E95-1-0815	E96-2-1613 E96-2P-21A15	Blue polypropylene
E89-102-61C02	Single swing pin	E95-1-0815	E96-2-1613 E96-2P-21A15	STAT-PRO 100
E89-102-0603	Single swing pin	E95-1-0815	E96-2-1613 E96-2P-21A15	Blue polypropylene
E93-101-61C02	Two snap	E95-1-0815	E96-4-1613 E96-4P-21A15	STAT-PRO 100
E93-101-0603	Two snap	E95-1-0815	E96-4-1613 E96-4P-21A15	Blue polypropylene
E93-102-61C02	Single swing pin	E95-1-0815	E96-4-1613 E96-4P-21A15	STAT-PRO 100
E93-102-0603	Single swing pin	E95-1-0815	E96-4-1613 E96-4P-21A15	Blue polypropylene
E93-103-0603	Three swing pin	E95-1-0815	E96-4-1613 E96-4P-21A15	Blue polypropylene
E93-103-61C02	Three swing pin	E95-1-0815	E96-4-1613 E96-4P-21A15	STAT-PRO 100



## ACCESSORIES

### Wafer Carrier Handles

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

### Ordering information

Part number	Handle style	Description	Compatible wafer carriers	Overall size (L x W x H)	Material
A72-50-03-0215 PA72-50-03-0603	Squeeze	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series, 190 series	163 x 140 x 183 mm (6.4" x 5.5" x 7.2")	Natural PFA Blue polypropylene
A040-101-0215	Squeeze with lock bar	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series	165 x 130 x 165 mm (6.5" x 5.1" x 6.5")	Natural PFA
A047-0215	Squeeze with support bar	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series	165 x 152 x 203 mm (6.5" x 6.0" x 8.0")	Natural PFA
A72-50-04B-0215	Slingshot	Slides onto the top flanges of carrier	All "M" style 182 series, 194 series	15 x 170 x 246 mm (0.6" x 6.7" x 9.7")	Natural PFA
A72-50-04-0215	Slingshot	Slides onto the top flanges of carrier	All 72 series	15 x 170 x 246 mm (0.6" x 6.7" x 9.7")	Natural PFA



A72-50-03



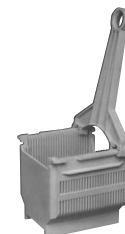
A040-101



A047

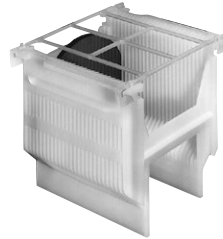


A72-50-04, A72-50-04B



**Wafer Carrier Wafer Retainer**

- Secures wafers in carrier
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Overall size (L x W x H)	Compatible carriers	Material
A72-50-02-0215	135 x 165 x 18 mm (5.3" x 6.5" x 0.7")	All 125 mm	Natural PFA

**Storage Box Cushions**

- Snap inside box covers to provide added wafer security
- Extended lead times and minimum order quantities apply

**Ordering information**

Part number	Compatible storage boxes	Material
E95-0815	E89 series E93 series	Low-density polyethylene

**Storage Box Traveler Envelopes**

- Flexible envelopes snap onto covers
- Extended lead times and minimum order quantities apply

**Ordering information**

Part number	Compatible storage boxes	Material
E96-2-1613 flat E96-2P-21A15 pleated	E89 series	Transparent PVC Antistatic PVC
E96-4-1613 flat E96-4P-21A15 pleated	E93 series	Transparent PVC Antistatic PVC

## 100 MM (4") WAFER HANDLING

Entegris offers a complete line of products for handling your 100 mm wafers including wafer shipping boxes and carriers, storage boxes, and other accessories.

### MULTIPLE WAFER SHIPPING BOXES

#### Ultrapak Series

- Individual horizontal cantilever springs limit wafer rotation to reduce particle contamination and also secure the wafers in the cassette to safeguard against breakage
- Ultrapure polypropylene materials provide a clean shipping environment and assure low levels of condensable inorganics
- Horizontal and vertical robotic pickup flanges on the cassette allow convenient handling
- Center notch track alignment and "H" bar ensure accurate equipment interoperability both vertically and horizontally
- Assembly overall size: 163 mm × 146 mm × 120 mm (6.4" × 5.8" × 4.7")
- Cassette:  
D1: 14.53 mm (0.57")  
Pitch: 4.76 mm (0.19")  
Overall size: 143 mm × 126 mm × 108 mm (5.6" × 5.0" × 4.3")
- Extended lead times and minimum order quantities apply



#### Ordering information

Part number	Material	Description
H9100-0041	High-purity polypropylene	Assembly, shrink-wrapped
H9100-0042	High-purity polypropylene	Assembly, cleaned

### Ultrapak Thin Wafer Series

- Designed for thin Si and compound semiconductor applications
- Has added upper and lower cushion for thin wafer support
- Prevents wafer cross-slotting and improves radial support
- Horizontal and vertical robotic pickup flanges on the cassette allow convenient handling
- Center notch track alignment and "H" bar ensure accurate equipment interoperability both vertically and horizontally
- Assembly overall size:  
146 mm × 162.6 mm × 119.4 mm  
(5.75" × 6.42" × 4.7")
- Cassette: D1: 14.5 mm (0.57")  
Pitch: 114.3 mm (4.5")  
Overall size: 143.3 mm × 125.7 mm × 107.8 mm  
(5.65" × 4.95" × 4.25")
- Extended lead times and minimum order quantities apply



### Ordering information

Part number	Description	Minimum order quantity
H9100-0050	Standard (offered shrink-wrapped)	144
H9100-0051	Cleaned	144

**SINGLE WAFER SHIPPERS**

**H93 Series**

- Holds one wafer facedown contacting only the wafer's edges
- Contains four inserted cushions to retain wafer and minimize particle generation
- Tweezer slots on shipper bottom ease wafer removal
- Stackable for efficient use of storage space
- Large area on lid provides space for labeling
- Pin-in-socket hinge allows shipper to be opened completely without tipping backwards
- Polypropylene replacement cushions available to retrofit existing packages



- Clear polycarbonate material protects wafer and allows visual inspection without opening
- Extended lead times and minimum order quantities apply

**Ordering information**

Part number	Overall size (L x W x H)	Description	Material
H93-40-101-1116	127 mm x 112 mm x 20.3 mm (5.0" x 4.4" x 0.80")	Shipper	Clear polycarbonate
H93-100A	—	Replacement cushions, package of 100	Polypropylene

### H22 Series

- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Spring retains wafer and minimizes particle generation
- Stackable for efficient use of storage space
- Loose or lock stacking, either tray on tray or cover on tray
- Convenient screw on covers



- Large area on cover provides space for labeling
- Extended lead times and minimum order quantities apply

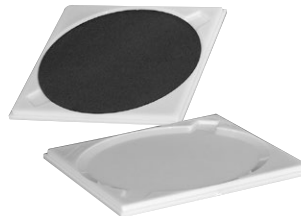
### Ordering information

Part number	Description	Material
H22-40-0615	Tray	Natural polypropylene
H22-401-0615	Cover	Natural polypropylene
H22-402-0615	Spring	Natural polypropylene
H22-402-0815	Spring	Low-density polypropylene
H22-40A2-061	Spring, low force	Natural polypropylene
H22-40-62C02	Tray	STAT-PRO 150
H22-401-62C02	Cover	STAT-PRO 150
H22-402-62C02	Spring	STAT-PRO 150

### SINGLE WAFER TRAYS

#### H20 Series

- For internal handling of single wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Tweezer slots on tray bottom ease wafer removal
- Stackable for efficient use of storage space, either tray on tray or cover on tray
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

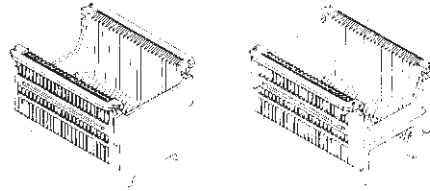


### Ordering information

Part number	Overall size	Description	Material
H20-3000-01-1415	114 mm sq. (4.5")	Tray	Natural ABS
H20-3000-02-1216	—	Cover	Clear styrene

**SINGLE WAFER SHIPPERS****182 Series\***

- Open sidewall style with wraparound wash slots
- "H" bar equipment interface
- Protective side wall design guards against damage from operator contact
- Capacity: 25
- D1 dimension: 14.53 mm (0.57")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Available materials: Natural PFA, STAT-PRO 1000, STAT-PRO 100, blue polypropylene

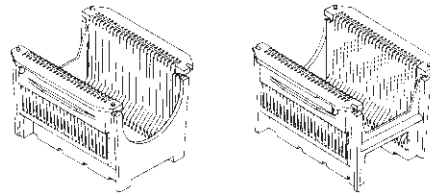


A182-39MLB

- Overall size: 143 mm × 126 mm × 108 mm (5.7" × 4.9" × 4.3")
- Extended lead times and minimum order quantities may apply
- See page 15 for ordering information

**72 Series\***

- Original linear wafer carrier
- Wash openings
- "H" bar equipment interface
- Pins and holes on top rail
- Both end walls have flanges that extend to the bottom of carrier
- Capacity: 25
- D1 dimension: 13.97 mm (0.55")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Available materials: Natural PFA, STAT-PRO 100, blue polypropylene

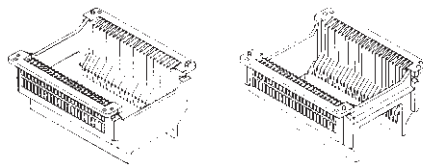


A72-40MB

- Overall size: 142 mm × 126 mm × 114 mm (5.6" × 4.9" × 4.5")
- Extended lead times and minimum order quantities may apply
- See page 15 for ordering information

**190 Series\***

- Optimum performance in centrifugal processing applications
- Low contour, open flow sidewall style
- "H" bar equipment interface
- Pins and holes on top rail
- Capacity: 25
- D1 dimension: 14.53 mm (0.57")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.40 mm (0.06")
- Available materials: Natural PFA



A190-40M

- Overall size: 143 mm × 126 mm × 76 mm (5.6" × 4.9" × 3.0")
- Extended lead times and minimum order quantities may apply
- See page 15 for ordering information

*\*Significant dimensional differences may exist between different designs and materials within the same wafer carrier series. Please contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com for detailed information on specific products.*

## Ordering information

Part number	End wall configuration	"H" bar end flanges	Compatible boxes	Material
A182-39M-0215	Solid	No	E97, E88	Natural PFA
A182-39MLB-0215	Solid, flanges	No	E97, E88	Natural PFA
A182-39MLC-0215	Window, flanges	No	E97, E88	Natural PFA
A182-39MU-0215	"U" shaped, flanges	Yes	E97, E88	Natural PFA
PA182-39M-61C02	"U" shaped	No	E97, E88	STAT-PRO 100
PA182-39M-0603	"U" shaped	No	E97, E88	Blue polypropylene
PA182-39MLB-61C02	Solid, flanges	No	E97, E88	STAT-PRO 100
PA182-39MLB-0603	Solid, flanges	No	E97, E88	Blue polypropylene
PA182-39MLC-61C02	Window, flanges	No	E97, E88	STAT-PRO 100
PA182-39MLC-0603	Window, flanges	No	E97, E88	Blue polypropylene
A72-40MB-0215	"U" shaped, flanges	Yes	E97, E88	Natural PFA
PA72-40MB-61C02	"U" shaped, flanges	Yes	E97, E88	STAT-PRO 100
PA72-40MB-0603	"U" shaped, flanges	Yes	E97, E88	Blue polypropylene
A190-40M-0215	Solid, flanges	No	—	Natural PFA

## STORAGE BOXES

## E97 Series

- Pin and socket hinges
- Single snap latch
- Stackable
- Optional wafer cushion
- Single carrier capacity
- Compatible carriers: 182 series, "M" style 72 series
- Overall size:  
E97-101: 155 mm × 188 mm × 130 mm (6.1" × 7.4" × 5.1")  
E97-102: 155 mm × 193 mm × 130 mm (6.1" × 7.6" × 5.1")



E97-102

- Available materials: STAT-PRO 100, blue polypropylene
- Extended lead times and minimum order quantities apply
- See page 16 for ordering information

*\*Significant dimensional differences may exist between different designs and materials within the same wafer carrier series. Please contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com for detailed information on specific products.*



**E88 Series**

- Pin and socket hinges
- Two snap latches or one swing pin latch
- Stackable
- Optional wafer cushion
- Two carrier capacity
- Compatible carriers: 182 series, "M" style 72 series
- Overall dimensions:  
E88-101: 282 mm × 198 mm × 132 mm (11.1" × 7.8" × 5.2")  
E88-102: 282 mm × 203 mm × 132 mm (11.1" × 8.0" × 5.2")

*E88-101*

- Available materials: STAT-PRO 100, blue polypropylene
- Extended lead times and minimum order quantities apply
- See below for ordering information

**Ordering information\***

Part number	Latch	Optional envelopes	Optional cushion	Material
E97-101-61C02	Single snap	E96-6-1613 E96-6P-21A15	E95-4-0815	STAT-PRO 100
E97-101-0603	Single snap	E96-6-1613 E96-6P-21A15	E95-4-0815	Blue polypropylene
E97-102-61C02	Single swing pin	E96-6-1613 E96-6P-21A15	E95-4-0815	STAT-PRO 100
E97-102-0603	Single swing pin	E96-6-1613 E96-6P-21A15	E95-4-0815	Blue polypropylene
E88-101-61C02	Two snap	E96-1-1613 E96-1P-21A15	E95-3-0815	STAT-PRO 100
E88-101-0603	Two snap	E96-1-1613 E96-1P-21A15	E95-3-0815	Blue polypropylene
E88-102-61C02	Single swing pin	E96-1-1613 E96-1P-21A15	E95-3-0815	STAT-PRO 100
E88-102-0603	Single swing pin	E96-1-1613 E96-1P-21A15	E95-3-0815	Blue polypropylene

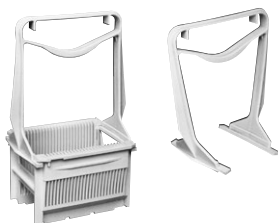
## ACCESSORIES

### Wafer Carrier Handles

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

### Ordering information

Part number	Handle style	Description	Compatible wafer carriers	Overall size	Material
A72-40-03-0215 PA72-40-03-0603	Squeeze	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series, 190 series	163 x 140 x 183 mm (6.4" x 5.5" x 7.2")	Natural PFA Blue polypropylene
A72-40-06-0215				165 x 114 x 119 mm (6.1" x 4.5" x 4.7")	Natural PFA
A040-102-0215	Squeeze with lock bar	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series	165 x 130 x 165 mm (6.5" x 5.1" x 6.5")	Natural PFA
A047-0215	Squeeze with support bar	Attaches to the notches on both end walls of carrier	All "M" style 182 series, 194 series, 72 series	165 x 152 x 203 mm (6.5" x 6.0" x 8.0")	Natural PFA
A048-0215	Squeeze with support bar	Attaches to the notches on both end walls of carrier	All 100 mm "M" style except A190-40M	165 x 114 x 203 mm (6.5" x 4.5" x 8.0")	Natural PFA
A053-0215	End load	Attaches to the flanges on the end wall of carrier	A190-40M, A182-39MLB, A182-39MLC	208 x 122 x 46 mm (8.2" x 4.8" x 1.8")	Natural PFA
A72-40-04B-0215	Slingshot	Slides onto the top flanges of carrier	All "M" style 182 series, 194 series	15 x 170 x 246 mm (0.6" x 6.7" x 9.7")	Natural PFA
A72-40-04-0215	Slingshot	Slides onto the top flanges of carrier	All 72 series	15 x 170 x 246 mm (0.6" x 6.7" x 9.7")	Natural PFA



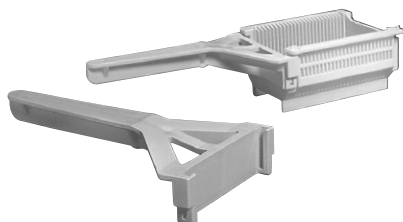
A72-40-03, A72-40-06



A72-40-04,  
A72-40-04B



A040-102



A053



A048

**Wafer Carrier Wafer Retainer**

- Secures wafers in carrier
- Compatible handle: A72-40-03
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Overall size (L x W x H)	Compatible carriers	Material
A72-40M-02-0215	102 x 135 x 15 mm (4.0" x 5.3" x 0.6")	A182-39M, PA182-39M, A72-40MB, PA72-40MB	PFA

**Storage Box Cushions**

- Snap inside box covers to provide added wafer security
- Extended lead times and minimum order quantities apply

**Ordering information**

Part number	Compatible storage boxes	Material
E95-4-0815	E97 series	Low-density polyethylene
E95-3-0815	E88 series	Low-density polyethylene

**Storage Box Traveler Envelopes**

- Flexible envelopes snap onto covers
- Extended lead times and minimum order quantities apply

**Ordering information**

Part number	Compatible storage boxes	Material
E96-6-1613 flat E96-6P-21A15 pleated	E97 series	Transparent PVC Antistatic PVC
E96-1-1613 flat E96-1P-21A15 pleated	E88 series	Transparent PVC Antistatic PVC

## 76.2 MM (3") WAFER HANDLING

### MULTIPLE WAFER SHIPPING BOXES

#### H6630 Series

- Full-depth wafer protection
- Positive cover alignment
- Individual wafer support springs
- Stackable
- Assembly overall size:  
160 mm × 84 mm × 96 mm  
(6.3" × 3.3" × 3.8")
- Pitch: 4.76 mm (0.19")
- Extended lead times and minimum order quantities apply



#### Ordering information

Part number	Material	Description
H6630-0009	Assembly, shrink-wrapped	Natural polypropylene
H6630-0011	Assembly, low-silicon, shrink-wrapped	Low-silicon polypropylene
H6630-0016	Assembly, cleaned	Natural polypropylene

## SINGLE WAFER SHIPPERS

### H22 Series

- Available for 90 mm, 3.25", and 3" wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Spring retains wafer and minimizes particle generation
- Stackable for efficient use of storage space
- Loose or lock stacking, either tray on tray or cover on tray
- Convenient screw on covers
- Large area on cover provides space for labeling
- Extended lead times and minimum order quantities apply



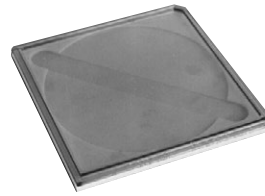
### Ordering information

Part number	Wafer size	Description	Material
H22-35-0615 H22-351-0615 H22-352-0615	90 mm	Tray Cover Spring	Natural polypropylene Natural polypropylene Natural polypropylene
H22-32-0615 H22-321-0615	3.25"	Tray Cover	Natural polypropylene Natural polypropylene
H22-32-62C02 H22-321-62C02	3.25"	Tray Cover	STAT-PRO 150 STAT-PRO 150
H22-30-0615 H22-301-0615 H22-302A-0615 H22-302-0815	3"	Tray Cover Spring, low force Spring	Natural polypropylene Natural polypropylene Natural polypropylene Low-density polyethylene
H22-30-62C02 H22-301-62C02 H22-302A-62C02	3"	Tray Cover Spring	STAT-PRO 150 STAT-PRO 150 STAT-PRO 150

## SINGLE WAFER TRAYS

### H20 Series

- For internal handling of single wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Tweezer slots on tray bottom ease wafer removal
- Stackable for efficient use of storage space, either tray on tray or cover on tray
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



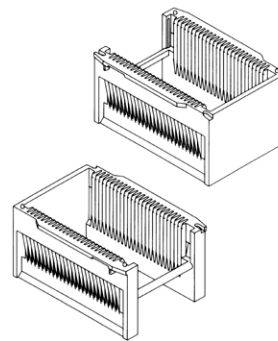
### Ordering information

Part number	Overall size	Description	Material
H20-2000-01-1415	91 mm sq. (3.6")	Tray	Natural ABS
H20-2000-02-1201		Cover	Amber styrene

## WAFER CARRIERS

### A72, PA72

- Round crossbar
- Wash openings
- Straight sidewalls
- Pins and holes on the top rail
- Capacity: 25
- D1 dimension: 14.0 mm (0.55")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Overall size: 142 mm x 94 mm x 83 mm (5.6" x 3.7" x 3.3")
- Compatible boxes: E52-101, E38-101
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



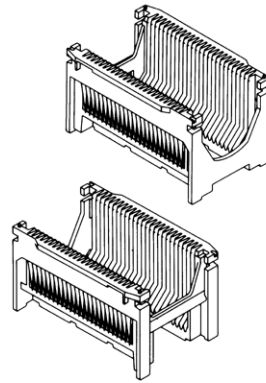
A72-30M

### Ordering information

Part number	End wall style	Material
A72-30M-0215	Solid	PFA
PA72-30M-0603	"U" shaped	Blue polypropylene

**A82M, PA82M**

- "H" bar equipment interface
- Flanges on the "H" bar end
- Wash openings
- Pins and holes on the top rail
- Capacity: 25
- D1 dimension: 14.0 mm (0.55")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Overall size: 142 mm x 94 mm x 83 mm (5.6" x 3.7" x 3.3")
- Compatible boxes: E52-101, E38-101
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



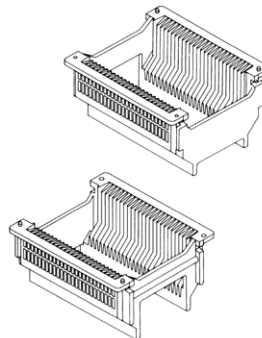
A82M

**Ordering information**

Part number	Material
A82M-0215	PFA
PA82M-0603	Blue polypropylene
PA82M-61C02	STAT-PRO 100

**A190**

- Optimum performance in centrifugal processing applications
- Low contour open flow sidewall style
- "H" bar equipment interface
- Flanges on the end wall and "H" bar end
- Solid end wall
- Pins and holes on the top rail
- D1 dimensions: 14.0 mm (0.55")
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.27 mm (0.05")
- Overall size: 142 mm x 94 mm x 60 mm (5.6" x 3.7" x 2.4")



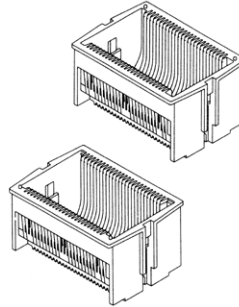
- Compatible box: E52-101
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Material
A190-30M-0215	PFA

**PA50-30**

- Immersion style
- Solid end wall
- Wash openings
- Capacity: 25
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Overall size: 155 mm x 94 mm x 83 mm (6.1" x 3.7" x 3.3")
- Compatible box: E52-101
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Material
PA50-30-0603	Blue polypropylene

**STORAGE BOXES****E52-101**

- Angled box bottom
- Pin and socket hinges
- Three swing pin latches
- Stackable
- Two carrier capacity
- Optional cushion and envelope available
- Compatible carriers: All 3" wafer carriers
- Overall size: 203 mm x 236 mm x 114 mm (8.0" x 9.3" x 4.5")

*E52-101*

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Material	Description
E52-101-0603	Storage box	Blue polypropylene
E52-101-61C02	Storage box	STAT-PRO 100
E96-2P-21A15	Envelope	Antistatic PVC
E96-2-1613	Envelope	PVC
E95-7-0815	Cushion	Low-density polyethylene



**E38-101**

- End loading
- Friction snap-in cover
- Card slot on top
- One carrier capacity
- Compatible carriers: A82M, A72-30M
- Overall size: 157 mm x 102 mm x 102 mm (6.2" x 4.0" x 4.0")



- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

**Ordering information**

Part number	Material
E38-101-0715	High-density polypropylene

**ACCESSORIES**

**Wafer Carrier Handles**

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



A82-03



A048B

**Ordering information**

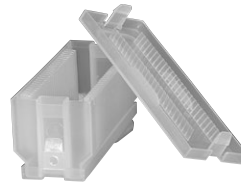
Part number	Handle style	Description	Compatible wafer carriers	Overall size (L x W x H)	Material
A82-03-0215 PA82-03-0603	Squeeze	Attaches to the notches on both end walls of carrier	A82M, PA82M	165 x 91 x 157 mm (6.5" x 3.6" x 6.2")	Natural PFA Blue polypropylene
A048B-0215	Squeeze with support bar	Attaches to the notches on both end walls of carrier	Most 3" "M" style	165 x 91 x 157 mm (6.5" x 3.6" x 6.2")	Natural PFA

## 2.5" AND SMALLER WAFER HANDLING

### MULTIPLE WAFER SHIPPING BOXES

#### H6620 Series, 2"

- Full-depth wafer protection
- Positive cover alignment
- Individual wafer support springs
- Stackable
- Assembly overall size:  
160 mm × 60 mm × 67 mm  
(6.3" × 2.5" × 2.7")
- Pitch: 4.76 mm (0.19")
- Extended lead times and minimum order quantities apply



H6620-009

#### Ordering information

Part number	Description	Material
H6620-0009	Assembly, shrink-wrapped	Natural polypropylene
H6620-0010	Assembly, cleaned	Natural polypropylene
H6620-0011	Assembly, low-silicon, shrink-wrapped	Low-silicon polypropylene

## SINGLE WAFER SHIPPERS

### H22 Series

- Available for 2.5", 2", 1.5", and 1" wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Spring retains wafer and minimizes particle generation
- Stackable for efficient use of storage space
- Loose or lock stacking, either tray on tray or cover on tray
- Convenient screw on covers



- Large area on cover provides space for labeling
- Extended lead times and minimum order quantities apply

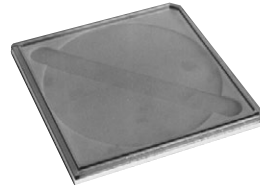
### Ordering information

Part Number	Wafer Size	Description	Material
H22-25-0615 H22-251-0615 H22-252-0615 H22-252-0815	2.5"	Tray Cover Spring Spring	Natural polypropylene Natural polypropylene Natural polypropylene Low-density polyethylene
H22-25-62C02 H22-251-62C02 H22-252-62C02	2.5"	Tray Cover Spring	STAT-PRO 150 STAT-PRO 150 STAT-PRO 150
H22-20-0615 H22-201-0615 H22-202A-0615 H22-202-0815	2"	Tray Cover Spring, low force Spring	Natural polypropylene Natural polypropylene Natural polypropylene Low-density polyethylene
H22-20-62C02 H22-201-62C02 H22-202A-62C02	2"	Tray Cover Spring	STAT-PRO 150 STAT-PRO 150 STAT-PRO 150
H22-15-0615 H22-151-0615 H22-152-0615 H22-152-0815	1.5"	Tray Cover Spring Spring	Natural polypropylene Natural polypropylene Natural polypropylene Low-density polyethylene
H22-15-62C02 H22-151-62C02 H22-152-62C02	1.5"	Tray Cover Spring	STAT-PRO 150 STAT-PRO 150 STAT-PRO 150
H22-10-0615 H22-101-0615 H22-102-0815	1"	Tray Cover Spring	Natural polypropylene Natural polypropylene Low-density polyethylene
H22-10-62C02 H22-101-62C02	1"	Tray Cover	STAT-PRO 150 STAT-PRO 150

## SINGLE WAFER TRAYS

### H20 Series

- Available for 2.25", 1.5" and 1.2" wafers
- For internal handling of single wafers
- Conical pocket holds one wafer facedown contacting only the wafer's edges
- Tweezer slots on tray bottom ease wafer removal
- Stackable for efficient use of storage space, either tray on tray or cover on tray



- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

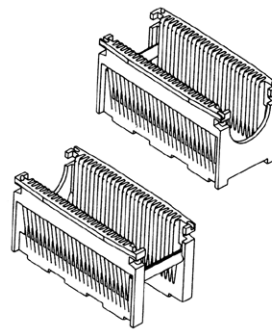
### Ordering information

Part number	Wafer size	Overall size	Description	Material
H20-520-01-1415 H20-520-02-0201	2.25"	67 mm sq. (2.6")	Tray Cover	Natural ABS Amber styrene
H20-500-1415 H20-02-1415 H20-02-1216 H20-02-1201	1.5"	51 mm sq. (2.0")	Tray Cover Cover Cover	Natural ABS Natural ABS Clear styrene Amber styrene
H20-250-1415 H20-02-1415 H20-02-1216 H20-02-1201	1.2"	51 mm sq. (2.0")	Tray Cover Cover Cover	Natural ABS Natural ABS Clear styrene Amber styrene

## 2.5" WAFER CARRIERS

### A72-25M, PA72-25M

- Crossbar
- "U" shaped end wall
- Wash openings
- Capacity: 25
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.27 mm (0.05")
- D1 dimension: 14.0 mm (0.55")
- Overall size: 142 mm × 79 mm × 73 mm (5.6" × 3.1" × 2.9")
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



A72, PA72

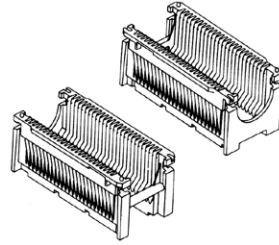
### Ordering information

Part number	Material
A72-25M-0215	PFA
PA72-25M-0603	Blue polypropylene

### 2.25" WAFER CARRIERS

#### A72-22M, PA72-22M

- Crossbar
- "U" shaped end wall
- Wash openings
- Capacity: 25
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- D1 dimension: 14.0 mm (0.55")
- Overall size: 142 mm x 73 mm x 67 mm (5.6" x 2.9" x 2.6")



A72-22M, PA72-22M

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

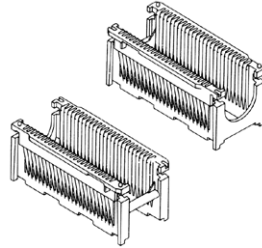
#### Ordering information

Part number	Material
A72-22M-0215	PFA
PA72-22M-0603	Blue polypropylene

### 2" WAFER CARRIERS

#### A72-20M, PA72-20M

- Crossbar
- "U" shaped end wall
- Wash openings
- Capacity: 25
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.02 mm (0.04")
- D1 dimension: 14.0 mm (0.55")
- Overall size: 142 mm x 68 mm x 59 mm (5.6" x 2.7" x 2.3")



A72-20M, PA72-20M

- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

#### Ordering information

Part number	Material
A72-20M-0215	PFA
PA72-20M-0603	Blue polypropylene

**STORAGE BOXES****E04**

- Textured, nonslip surface
- Liftoff cover
- Friction seal only
- Box capacity: one carrier
- Compatible carriers: 2", 2.25", and 2.5" A72 and PA72 wafer carriers
- Extended lead times apply
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

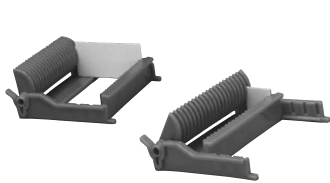
*E04***Ordering information**

<b>Part number</b>	<b>Material</b>
E04-1202	Black high impact polystyrene

## MISCELLANEOUS DEVICE CARRIERS

### ADJUSTABLE CARRIERS

- For rectangular devices
- Adjust to hold specific sizes
- Rails permit universal assembly to accommodate various widths
- Assembly required
- Compatible handles: A018, A027, A031, A044
- Compatible storage box: E127-101 available for AC-101 carrier only
- E127-101 two-piece storage box has transparent cover which allows easy identification of contents
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



AC-101



E127-101, storage box



A135-11



A135-12

### Ordering information

Part number	Device size (L x W)	Pocket flat	Capacity	Assembled size (L x W x H)	Material
AC-101-0603	6.4 mm to 56.2 mm (0.25" to 2.25")	—	20	102 x 83 x 36 mm (4.0" x 3.3" x 1.4")	Blue polypropylene
E127-101-5115 <i>storage box for AC-101 carrier only</i>	Holds AC-101-0603 carrier	—	1 carrier	154 x 136 x 105 mm (6.0" x 5.4" x 4.2")	Transparent PETG
A135-11-0215	38 mm to 102 mm x 76 mm (1.5" to 4.0" x 3.0")	2.3 mm (0.90")	25	155 x 130 x 56 mm (6.1" x 5.1" x 2.2")	PFA
PA135-11-0603	38 mm to 102 mm x 76 mm (1.5" to 4.0" x 3.0")	2.3 mm (0.90")	25	163 x 206 x 61 mm (6.4" x 8.1" x 2.3")	Blue polypropylene
A135-12-0215	108 mm to 171 mm x 76 mm (4.25" to 6.75" x 3.00")	2.3 mm (0.90")	25	155 x 206 x 56 mm (6.1" x 8.1" x 2.2")	PFA

## CUSTOM CARRIERS

Custom carriers allow you to construct a carrier to your specific requirements.

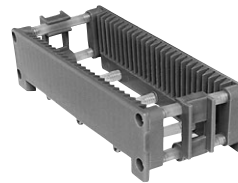
- Use where a specified size is needed
- Rails permit universal assembly to accommodate various widths
- Sold as component parts only – assembly required

### Carrier Construction

Each custom carrier is constructed of two side rails held together with a number of rods that have been cut to length and tapped. These side rails and rods are attached with two screws for every rod. The rods are then held together with two retaining clips. The exact number of rods and screws is dependent on the carrier series selected. You specify the rod length to fit your applications.

### PA85 Series

- For square or rectangular devices
- Capacity: 25
- Pocket spacing: 4.76 mm (0.19")
- Pocket flat: 1.52 mm (0.06")
- Pocket depth: 25.4 mm (1.00")
- Length: 163 mm (6.4")
- Compatible handle: A031
- Compatible storage box: none
- Rod length is equal to the device length minus 10.67 mm (0.42")



PA85

- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

### Ordering information

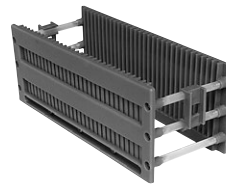
Part number	Component part	Quantity per carrier	Material
PA85-01-0603	Individual side rail	2	Blue polypropylene
PA85-04-0603	Retaining clip	2	Blue polypropylene
1511-034	Screw	14	Stainless steel
1112-031CR	Individual rod	7	Natural polypropylene

*\*When ordering, multiply the number of carriers desired by the quantity per carrier for each component. For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com.*



**PA83 Series**

- For square or rectangular devices
- Wash openings for efficient cleaning
- Capacity: 30
- Pocket spacing: 6.35 mm (0.25")
- Pocket flat: 3.18 mm (0.13")
- Pocket depth: 69.8 mm (2.75")
- Length: 221 mm (8.7")
- A021 handle attaches to carrier end wall
- Compatible storage box: none
- Handle overall size: 241 mm x 15 mm x 267 mm (9.5" x 0.6" x 10.5")



PA83



A021

- Rod length is equal to the device length minus 10.67 mm (0.42")
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

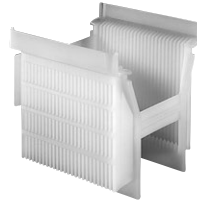
**Ordering information**

Part number	Component part	Quantity per carrier	Material
PA83-01-0603 A83-01-0215	Individual side rail	2	Blue polypropylene PFA
PA85-04-0603	Retaining clip	2	Blue polypropylene
PA85-01-0603	Individual side rail	2	Blue polypropylene
PA85-01-61C02	Individual side rail	2	STAT-PRO 100
1511-034	Screw	18	Stainless steel
1112-031CR	Individual rod	9	Natural polypropylene
A021-031	Handle	—	ETFE
1112-031CR	Individual rod	7	Natural polypropylene

*\*When ordering, multiply the number of carriers desired by the quantity per carrier for each component. For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083 or customerservice@entegris.com.*

**SOLAR CELL CARRIERS**

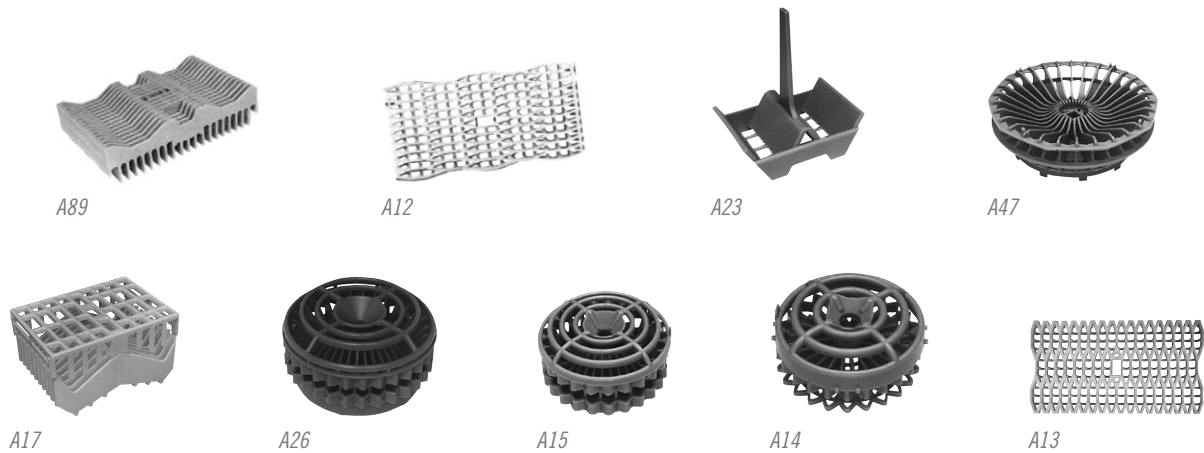
- For handling solar cells or other square devices
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

*A193-55M***Ordering information**

Part number	Device size (sq.)	Pocket spacing	Pocket flat	Capacity	Overall size (L x W x H)	Compatible handles	Compatible storage boxes	Material
A193-55M-0515	125 mm	4.76 mm (0.19")	1.52 mm (0.06")	25	144 × 152 × 152 mm (5.7" × 6.0" × 6.0")	A72-50-03	—	PVDF
A92-39M-0215	100 mm	4.76 mm (0.19")	1.52 mm (0.06")	25	143 × 123 × 114 mm (5.6" × 4.9" × 4.5")	A72-40-03 A72-40-06 PA72-40-03	E34-102 E49-101 E46-101	PFA

**WAFER BASKETS**

- For processing and handling substrates
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

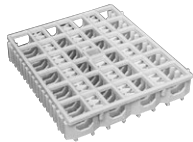


**Ordering information**

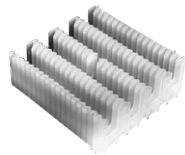
Part number	Wafer size	Capacity	Overall size	Compatible tanks	Compatible handles	Notes	Material
A89-01-0215	13 mm, 30 mm, 64mm (0.5", 1.2", 2.5")	52	175 × 112 × 43 mm (6.9" × 4.4" × 1.7")	E23-01	A05, A08	Pocket spacing: 71 mm (0.28") for gallium arsenide wafers	PFA
A12-01-0215	13 to 38 mm (0.5" to 1.5")	52	173 × 86 × 30 mm (6.8" × 3.4" × 1.2")	—	A05, A08	Carrier inverted serves as cover	PFA
A47-01-0215	38.1 to 57.2 mm (1.5" to 2.25")	30	160 mm dia × 51 mm (6.3" dia × 2.0")	E14-21-01 E14-25-01	A01, A07, A029	Numbered pockets	PFA
A23-0215	25 to 51 mm (1.0" to 2.0")	50	132 × 89 × 145 mm (5.2" × 3.5" × 5.7")	—	—	Integral handle, bottom flow-through: 15.88 mm (0.63"); pocket spacing: 3.18 mm (0.13")	PFA
A17-01-0215	19.0 to 51 mm (0.75" to 2.0")	20	122 × 89 × 28 mm (4.8" × 3.5" × 1.1")	—	A05, A08	Pocket width: 6.4 mm (0.25")	PFA
A26-01-0215	15.88 to 51 mm (0.625" to 2.0")	30	152 mm dia × 61 mm (6.0" dia × 2.4")	E14-25-01	A01, A07, A029	—	PFA
A15-01-0215	25 to 44.4 mm (1.0" to 1.75")	24	177 mm dia × 46 mm (4.6" dia × 1.8")	E12 E14-10-01 E22-101	A01, PA01, A07, PA07, A029, PA029	—	PFA
A15-02-0215 cover							
A14-01S-0215	15.88 to 31.8 mm (0.625" to 1.25")	24	89 mm dia × 20 mm (3.5" dia × 0.8")	E12	A01, A07, A029	A14-01S-61C02 basket	PFA
A14-02S-0215 cover							
A13-01-0215	13 to 28.58 mm (0.5" to 1.125")	52	173 × 86 × 23 mm (6.8" × 3.4" × 0.9")	—	A07, A08	Carrier inverted serves as cover	PFA

## LCD CARRIERS

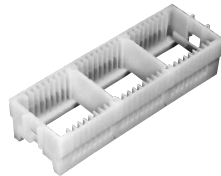
- For handling LCDs and other devices
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



A45



A93



PA112



A180



A88

## Ordering information

Part number	Pocket length	Pocket depth	Pocket spacing	Overall size (L x W x H)	Compatible handles	Capacity	Notes	Material
A45-01B-0215	23.0 mm (0.91")	4.2 mm (0.16")	13.6 mm (0.54")	112 × 102 × 18 mm (4.4" × 4.0" × 0.7")	—	72	For LCDs 14.2 mm × 21.6 mm (0.56" × 0.85")	PFA
A45-03-0215 <i>handle</i>	—	—	—	—	—	—	Handle length: 165 mm (6.5")	PFA
A45-04-0215 <i>handle</i>	—	—	—	—	—	—	Handle length: 254 mm (10.0")	PFA
A93-01-0603	24.4 mm (0.960")	4.1 mm (0.162")	28.58 mm (1.125")	109 × 103 × 39 mm (4.3" × 4.1" × 1.5")	A45-03	72	Cover: A45-02	Blue polypropylene
PA112-12-108-0603	32.0 mm (1.26")	2.5 mm (0.10")	27.4 mm (1.08")	159 × 37 × 35 mm (6.3" × 1.5" × 1.4")	A031	25	Wash openings, device transferable, stackable	Blue polypropylene
A180-01-0603	35.6 mm (1.400")	3.2 mm (0.125")	6.9 mm (0.28")	203 × 142 × 13 mm (8.0" × 5.6" × 0.5")	PA08	106	—	Blue polypropylene
A88-0215	66.1 mm (2.604")	6.8 mm (0.266")	20.8 mm (0.819")	203 × 152 × 30 mm (8.0" × 6.0" × 1.2")	A05, A08	42	For LCDs 66.5 mm long × 3.18 mm thick (2.50" × 0.13")	PFA

**MISCELLANEOUS CARRIERS**

- For handling miscellaneous devices
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



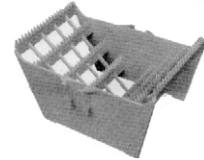
H48



A16



A118



A63

**Ordering information**

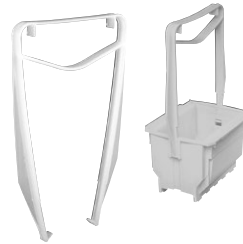
Part number	Device size	Pocket length	Pocket width	Pocket depth	Capacity	Overall size	Compatible handles	Notes	Material
H48-01-0215	7.9 mm dia (0.31")	8.1 mm (0.32")	3.6 mm (0.14")	7.1 mm (0.281")	48	64 × 71 × 13 mm (2.5" × 2.8" × 0.5")	A01, A07, A029	—	PFA
H48-02-0215	cover								
A16-01-0215	4.8 to 15.7 mm dia (0.19" to 0.62")	16.5 mm (0.65")	3.6 mm (0.14")	9.1 mm (0.36")	42	89 × 61 × 18 mm (3.5" × 2.4" × 0.7")	A05	—	PFA
A16-02-0215	cover								
A118-01-0215	25.4 mm (1.00")	25.4 mm (1.00")	7.9 mm (0.31")	9.5 mm (0.38")	18	76 × 74 × 15 mm (3.0" × 2.9" × 0.6")	A05, A08	Wash openings in each pocket	PFA
A63-01-0603	102 to 203 mm sq. or rec. (4" to 8")	—	0.8 mm (0.030")	—	20	210 × 152 × 121 mm (8.3" × 6.0" × 4.8")	—	Pocket spacing: 5.84 mm (0.230")	Blue polypropylene

## HANDLES FOR MISCELLANEOUS PRODUCTS

### SQUEEZE STYLE HANDLES

#### H93 Series

- Allows easy engagement and disengagement from the carrier
- Attaches to the notches in both end walls of the carrier
- Applying pressure to the center of the two cross members and squeezing causes the struts to separate
- For use with various miscellaneous carriers
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



A031



PA031

#### Ordering information

Part number	Overall size (L x W x H)	Material
A031-0215 PA031-0603	173 x 15 x 259 mm (6.8" x 0.6" x 10.0")	PFA Blue polypropylene

### STICK HANDLES

- Rectangular or square styles
- For use with LCD carriers, miscellaneous carriers, wafer baskets and labware trays
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

A01, PA01  
A07, PA07

PA029



A05



A08, PA08

#### Ordering information

Part number	Style	Overall size (L x W x H)	Description
A01-0215 PA01-0603	Square	10 x 10 x 193 mm (0.4" x 0.4" x 7.6")	PFA Blue polypropylene
A07-0215 PA07-0603	Square	10 x 10 x 229 mm (0.4" x 0.4" x 9.0")	PFA Blue polypropylene
PA029-0603	Square	10 x 10 x 305 mm (0.4" x 0.4" x 12.0")	Blue polypropylene
A05-0215	Rectangular	15 x 8 x 163 mm (0.6" x 0.3" x 6.4")	PFA
A08-0215 PA08-0603	Rectangular	15 x 8 x 229 mm (0.6" x 0.3" x 9.0")	PFA Blue polypropylene

## LABWARE PRODUCTS

### TWEEZERS

- For substrate handling
- Packaged in protective cases, additional cases available
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



#### Ordering information

Part number	Tip style and size	Tip thickness	Overall size	Notes	Material
C01-0315 C01-0612	Rounded, 0.8 mm (0.03") radius	—	127 mm × 13 mm (5.0" × 0.5")	—	ETFE White polypropylene
C10-0315	—	0.3 mm (0.01")	124 mm × 13 mm (4.9" × 0.5")	—	ETFE
C12-0315	Rounded, 1.5 mm (0.06") radius	0.3 mm (0.01")	124 mm × 13 mm (4.9" × 0.5")	—	ETFE
C13-03F15 C13-06F12	Rounded, 1.5 mm (0.06") radius	0.3 mm (0.01")	124 mm × 13 mm (4.9" × 0.5")	—	Glass-filled ETFE Glass-filled white polypropylene
C14-0315	Tapered, thin	—	127 mm (5.0")	Tips slightly heavier than C10 and C12	ETFE
C16-0315	Rounded, 1.5 mm (0.06") radius	0.4 mm (0.01")	178 mm × 15 mm (7.0" × 0.6")	—	ETFE
C20-0215 C20-06F12	Rounded, 1.5 mm (0.06") radius	—	127 mm × 13 mm (4.8" × 0.5")	Extra heavy for much stronger grip at ends	PFA Glass-filled white polypropylene

#### Tweezer Protective Case

- For tweezer storage
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083

#### Ordering information

Part number	Material
C16-01-1215	Natural polypropylene
C18-01-0615	Styrene/polystyrene

**TONGS**

- For substrate handling
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



**Ordering information**

Part number	Tip style	Tip width	Adjustable	Opening width	Overall size (L x W x H)	Notes	Material
C30-0215	Squared off with wafer stop horns	9.6 mm (0.38")	No	—	152 x 37 x 16 mm (6.0" x 1.5" x 0.6")	Does not damage substrate surface by over-grasping, comes with protective case	PFA
C40-0315	Hooked inward with squared end	2.5 mm (0.100")	Yes 4 positions	254 mm to 152 mm (10" to 6")	231 x 35 x 10 mm (9.9" x 1.2" x 0.4")	—	ETFE
C50-0315	Squared off	19 mm (0.75")	No	2.2 mm (0.9")	253 x 35 x 10 mm (10.3" x 1.4" x 0.8")	Extra length for deep tanks	ETFE
C52-0215	Squared off	—	No	—	190 mm x 19 mm (7.5" x 0.8")	Ideal for handling large plates	PFA

**VACUUM PROBES AND TIPS**

**D43 Vacuum Probe**

- Operated at the tip by placing finger over the hole on probe top
- End accepts 4.8 mm (3/16") ID hose
- Uses D42 tips or 4.1 mm (0.16") ID hypodermic needle
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



**Ordering information**

Part number	Material
D43-0603	Blue polypropylene



**BEAKERS**

- Seamless with uniform wall thickness
- Molded ring on bottom ensures stability
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



D50

**Ordering information**

Part number	Capacity	Diameter	Height	Material
D50-10-0215	100 mL (3.4 oz)	53 mm (2.1")	66 mm (2.6")	PFA
D50-60-0215	600 mL (20.3 oz)	91 mm (3.6")	121 mm (7.8")	PFA
D50-100-0215	1000 mL (33.8 oz)	110 mm (4.3")	144 mm (5.7")	PFA

**FUNNEL**

- Spout tapers to 6.4 mm (0.25")
- D20 strainer tray fits inside funnel
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



D40

**Ordering information**

Part number	Overall size	Material
D40-0215	81 mm dia × 84 mm (3.2" × 3.3")	PFA

**STRAINER TRAY**

- Use individually, stacked, or two trays may be locked together to form a rinse basket
- Choice of three different hole sizes
- Inside diameter: 76 mm (3.0")
- Overall size: 97 mm x 46 mm (3.8" x 1.8")
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



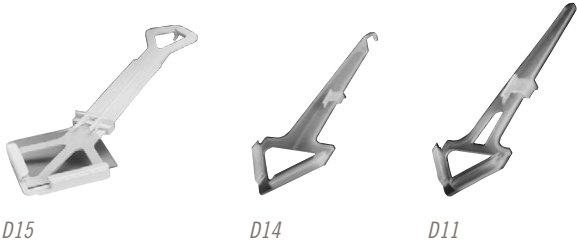
D20 Tray

**Ordering information**

Part number	Overall size	Material
D20-030-0215	0.76 mm dia (0.03")	PFA
D20-050-0215	1.3 mm dia (0.05")	PFA
D20-125-0215	3.2 mm dia (0.13")	PFA

**DIPPERS**

- Holds one wafer or one square plate
- Slot has "V" bottom
- Clip on handle slides down to hold substrates in place
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



D15

D14

D11

**Ordering information**

Part number	Square plate size	Wafer size	Maximum thickness	Dipper length	Material
D15-0215	14 mm to 203 mm (4.5" to 8.0")	125 mm to 200 mm (5" to 6")	6.4 mm (0.25")	480 mm (18.9")	PFA
D14-0215	50 mm to 153 mm (2.0" to 6.0")	57 mm to 125 mm (2.25" to 6")	3.0 mm (0.12")	265 mm (10.4")	PFA
D11-0215	51 mm and smaller (2.0" and smaller)	57 mm and smaller (2.25" and smaller)	1.5 mm (0.06")	210 mm (8.3")	PFA

### DIPPER BASKET

- Used to clean or etch small pieces
- Hook on end of handle
- Contains 100 openings
- Fits in 400 mL (13.5 oz) and larger beakers
- Opening size: 5.6 mm sq. (0.22")
- Inside dimensions: 63 mm dia x 51 mm (2.5" x 2.0")
- Overall size: 68 mm dia x 235 mm (2.7" x 9.3")
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



D10

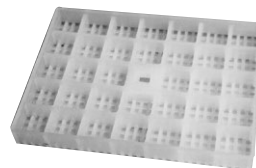
#### Ordering information

Part number	Material
D10-0315	ETFE

### TRAYS AND ACCESSORIES

#### D34 Wash Trays

- Used to clean odd-sized devices
- Divided into 34 pockets with 16 wash openings each
- Cover sold separately
- Compatible handle: A01
- Pocket size: 20 mm sq. x 10 mm (0.8" x 0.4")
- Wash openings: 3.18 mm (0.13")
- Overall size: 170 mm x 127 mm x 18 mm (6.7" x 5.0" x 0.7")
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



D34

#### Ordering information

Part number	Description	Material
D34-01-0215	Tray	PFA
D34-02-0215	Cover	PFA

#### E40 Handling and Storage Trays

- Holds devices for handling or storage
- Stackable
- Lead time: eight weeks
- For minimum order quantities (MOQ), contact Entegris Customer Service at +1 800 394 4083



E40

#### Ordering information

Part number	Square plate size	Pocket size	Maximum thickness	Material
E40-0603	14 mm to 203 mm (4.5" to 8.0")	25 mm x 46 mm x 13 mm (1.0" x 1.8" x 0.5")	6.4 mm (0.25")	Blue polypropylene
E40-12-0603 E40-12-61C02	50 mm to 153 mm (2.0" to 6.0")	64 mm x 71 mm x 13 mm (2.5" x 2.8" x 1.5")	3.0 mm (0.12")	Blue polypropylene STAT-PRO 100

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## STAT-PRO MATERIAL REFERENCE TABLE

STAT-PRO 100	Black, static protective polypropylene
STAT-PRO 125	Black, static protective polypropylene
STAT-PRO 135	Ceramic filled polypropylene
STAT-PRO 150	Black, conductive polypropylene
STAT-PRO 175F	Carbon fiber filled PES
STAT-PRO 200	Black, static protective polypropylene
STAT-PRO 300	Orange, static dissipative PFA
STAT-PRO 400	Colorable, static dissipative ABS
STAT-PRO 425	Transparent, static dissipative ABS
STAT-PRO 500	Black, conductive polycarbonate
STAT-PRO 525	Carbon fiber filler polycarbonate
STAT-PRO 550	Colorable, stainless steel filled polycarbonate
STAT-PRO 600	Carbon fiber filled PES
STAT-PRO 650	Carbon fiber filled polysulfone
STAT-PRO 800	Colorable, carbon fiber ULTEM®
STAT-PRO 825	Colorable, stainless steel ULTEM
STAT-PRO 1000	Black, static dissipative PFA
STAT-PRO 2000	Static dissipative PFA material
STAT-PRO 3000	Black, static dissipative PEEK™ with carbon fiber

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