

# Take-Out Holders and Inserts

*Full line of holders and GLASSMATE® graphite inserts*



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## INSERTS

### Blanks

Our hot glass handling materials have high strength, durability, and excellent thermal properties that reduce mechanical damage.

Blanks are ready to be machined with desired finish.

### Finished Inserts

Our experienced designers can assist with insert drawings to be precision machined into insert pairs. Customers should supply a bottle drawing or neck ring drawing for custom inserts.

Our quality system is certified to ISO 9001:2008 and AS9100:2009.

### Typical Finishes

#### *Crown*



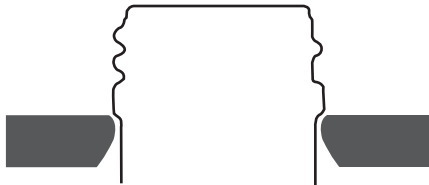
#### *Thread*



#### *Underthread*



#### *Bead*



## GLASSMATE® INSERT GRAPHITE GRADES

Our GLASSMATE family of graphite materials have been specifically developed for use in hot glass contact applications. Take-out inserts made from GLASSMATE materials have the heat resistance, strength, durability, and non-absorption characteristics to perform under the most rigorous conditions without damaging the glassware. Our hot glass handling materials offer excellent performance combined with reduced mechanical damage for increased pack rates.

### GM

GLASSMATE-GM Graphite – This material has high strength and durability for applications with high wear. An exceptional insert material for precision thread pickup and long production runs.

### LT

GLASSMATE-LT Graphite – This material has high strength for applications that incur high wear. It has a low thermal conductivity, which enables it to be used for handling sensitive glass.

### SR

GLASSMATE-SR Graphite – An economical material for short production runs. An ideal insert material for thick bead transfer applications.

### XL

GLASSMATE-XL Graphite – An exceptionally strong and wear-resistant, 1 micron grade. Ideal material for highly detailed thread finishes and long-run, high-wear conditions.

## TAKE-OUT HOLDERS

Our uniquely designed take-out holders makes it easy to change or snap a new insert into them without machine realignment. These durable holders give long service life and will take all popular finishes up to 87 mm.

### Features

- Exact fit with accompanying GLASSMATE graphite take-out inserts
- Anti-rotational interlock design with inserts assures positive finish alignment
- Spring tension clip holds inserts firmly in place

- Insert slot design allows for quicker insert changeouts
- Pins align two halves of the holder during production
- Shoulders on the holders ensure that both halves are square and of equal height
- Repair kits are available

## HOLDER STYLES

### Standard

For use with GLASSMATE circular inserts, our standard holders ensure precision pickup.

### Covered

Our covered holders are designed to prevent particle contamination of the ware and to reduce internal fused glass. Covered holders should be used for contamination-sensitive product ware.

### Interior Spring (ILS-1)

Our ILS-1 holder design has an interior locking system (ILS) that significantly reduces foreign object debris. The holder design eliminates screws that can vibrate out or become damaged when in production, preventing premature insert loss. The internal spring holder is adjustable to accommodate fixed or floating requirements and has self-aligning shoulders for easy accurate placement.

### Double Stacked

These holders are perfect for use with tall, narrow neck ware to reduce bottle swing, which helps prevent stuck ware and allows faster transfer from the mold to the dead plate.

### Extended

Extended holders are designed to allow bead transfer of ware with tall finishes and are used with tamper-evident closures.

### Modified

These holders allow increased visibility of the finish during precision set-up process and are ideal for ware with very tight shoulder-to-bead dimensions.

### Side Mount

These holders can be used with fixed or floating inserts. Side mount holders use standard rectangular inserts.

### Lightweight

The decreased shoulder of the holder allows more room between holders for machine set up. The lightweight holder features increased visibility and the reduced weight creates less wear on the machine. The decreased shoulder, combined with additional metal removed at the back of holder, produces a lightweight holder that runs longer before adjustments to the machine are necessary.

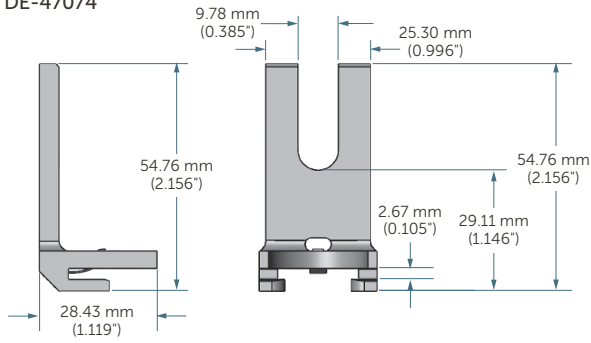
### Dual Function (PR-2)

This holder can be used with either a fixed or floating insert. This holder allows the user to change from a fixed holder to a fixed/floating holder while using existing inventory of round inserts. Benefits include three-point contact with insert for better hold, reduced tooling, and increased pickup flexibility.



**SIZE 18 MM AND 22 MM WITH FIXED OR FLOATING INSERTS (ILS)**

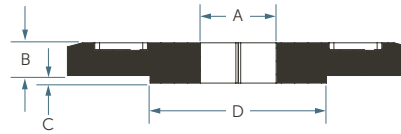
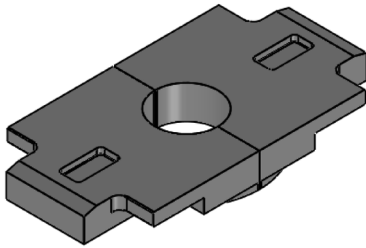
DE-47074



**HOLDERS**

| Part number       | Material     | Style           | Covered | Pins | Notes          |
|-------------------|--------------|-----------------|---------|------|----------------|
| DE-46301 (18 mm)* | Carbon steel | Internal spring | No      | No   | Fixed/floating |
| DE-47074 (22 mm)  | Carbon steel | Internal spring | No      | No   | Fixed/floating |

\*Special order product



**INSERTS\***

| Style          | Grades | A               | B               | C               | D               |
|----------------|--------|-----------------|-----------------|-----------------|-----------------|
| Standard 18 mm | GM     | 6.35 mm (0.25") | 5.49 mm (0.22") | 1.27 mm (0.05") | 26.4 mm (1.04") |
| Standard 22 mm | GM     | 6.35 mm (0.25") | 5.49 mm (0.22") | 1.27 mm (0.05") | 29.6 mm (1.17") |

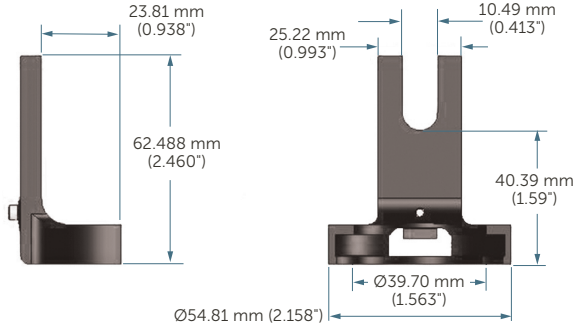
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

18 mm blanks with or without boss; maximum finish of 20.5 mm (0.81")  
 22 mm blanks with or without boss; maximum finish of 23.25 mm (0.92")

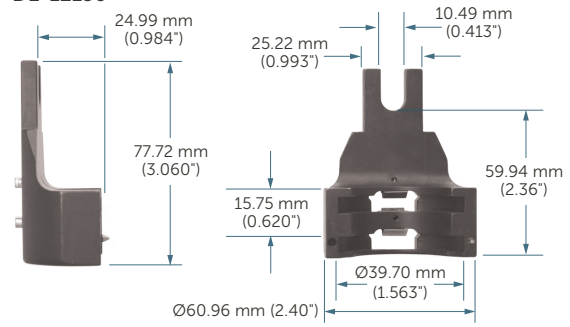
Dimensions are subject to change. Please contact Entegris for more information.

## SIZE 2" x 1/4" WITH FIXED INSERTS

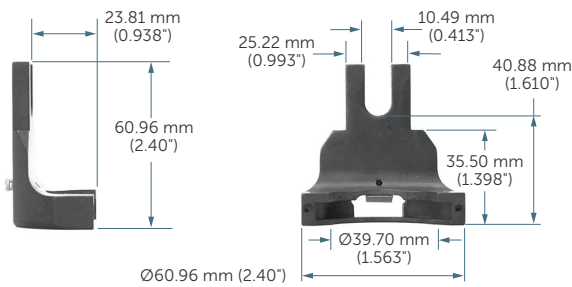
DE-12154



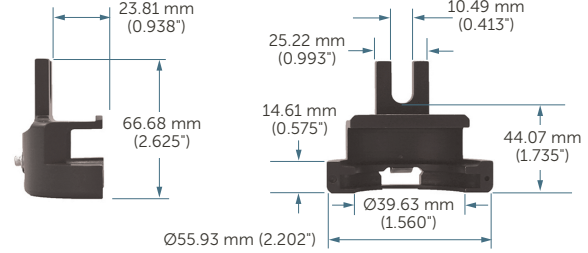
DE-12156



DE-12155, DE-12158

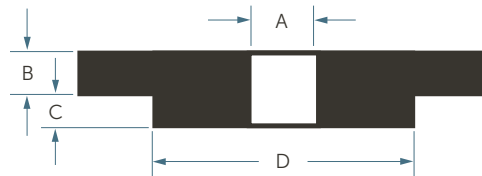
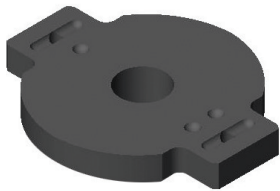


DE-12159



### HOLDERS

| Part number | Material     | Style          | Covered | Pins |
|-------------|--------------|----------------|---------|------|
| DE-12154    | Carbon steel | Lightweight    | No      | No   |
| DE-12155    | Carbon steel | Standard       | No      | Yes  |
| DE-12156    | Carbon steel | Double Stacked | No      | Yes  |
| DE-12158    | Carbon steel | Standard       | No      | No   |
| DE-12159    | Carbon steel | Standard       | Yes     | No   |



### INSERTS\*

| Style    | Grade | A                 | B               | C                | D                 |
|----------|-------|-------------------|-----------------|------------------|-------------------|
| Standard | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") | 1.59 mm (0.063") | Ø35.81 mm (1.41") |

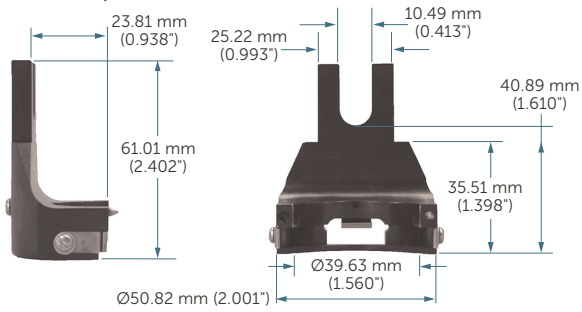
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

50.8 mm diameter (2") blanks with or without boss; maximum finish of Ø31 mm (1.22")

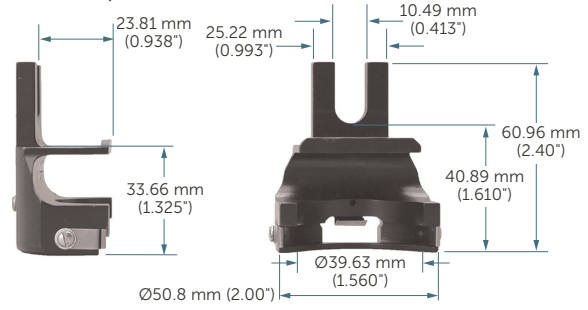
Dimensions are subject to change. Please contact Entegris for more information.

## SIZE 2" x 1/4" WITH FIXED OR FLOATING INSERTS

DE-22512, DE-25974

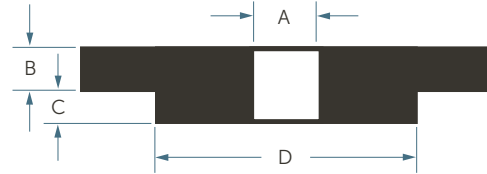
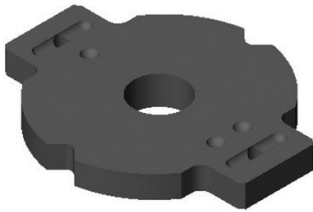


DE-25947, DE-25975



### HOLDERS

| Part number     | Material     | Style         | Covered | Pins | Notes          |
|-----------------|--------------|---------------|---------|------|----------------|
| DE-22512 (PR-2) | Carbon steel | Dual function | No      | Yes  | Fixed/floating |
| DE-25947 (PR-2) | Carbon steel | Dual function | Yes     | Yes  | Fixed/floating |
| DE-25974 (PR-2) | Carbon steel | Dual function | No      | No   | Fixed/floating |
| DE-25975 (PR-2) | Carbon steel | Dual function | Yes     | No   | Fixed/floating |



### INSERTS\*

| Style    | Grade | A                 | B                | C               | D                 |
|----------|-------|-------------------|------------------|-----------------|-------------------|
| Standard | GM    | Ø12.70 mm (0.50") | 5.59 mm (0.220") | 6.35 mm (0.25") | Ø35.81 mm (1.41") |

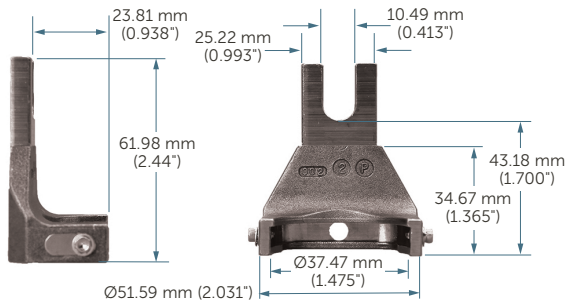
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

50.8 mm diameter (2") blanks with or without boss; maximum finish of Ø31 mm (1.22")

Dimensions are subject to change. Please contact Entegris for more information.

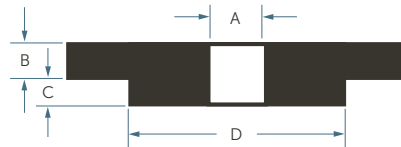
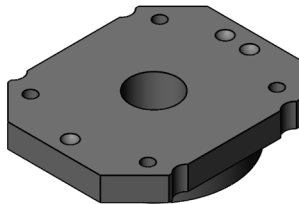
## SIZE 2 1/4" x 1/4" WITH FIXED OR FLOATING INSERTS

DE-20860, DE-32191, DE-32193



### Holders

| Part number | Material        | Style      | Covered | Pins | Notes          |
|-------------|-----------------|------------|---------|------|----------------|
| DE-20860    | Carbon steel    | Side mount | No      | No   | Fixed/floating |
| DE-32191    | Stainless steel | Side mount | No      | No   | Fixed/floating |
| DE-32193    | Stainless steel | Side mount | Yes     | No   | Fixed/floating |



### Inserts\*

| Style    | Grade | A                 | B               | C               | D                 |
|----------|-------|-------------------|-----------------|-----------------|-------------------|
| Standard | GM    | Ø12.70 mm (0.50") | 5.08 mm (0.20") | 4.32 mm (0.17") | Ø41.91 mm (1.65") |

\*Blank and finished take-out inserts are available. Contact Entegris for more information.

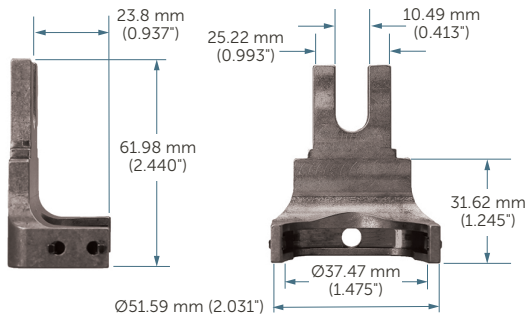
Blanks with or without boss; maximum finish of Ø38 mm (1.496").

Dimensions are subject to change. Please contact Entegris for more information.

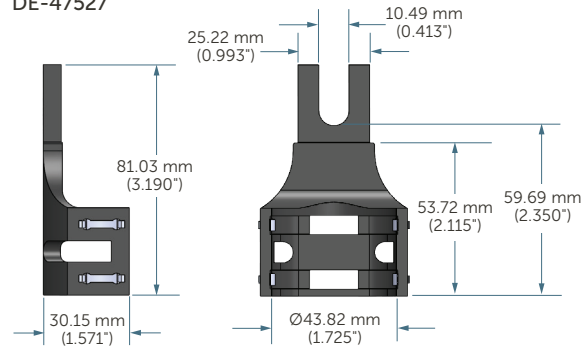


**SIZE 2 1/4" x 1/4" WITH FIXED OR FLOATING INSERTS (ILS)**

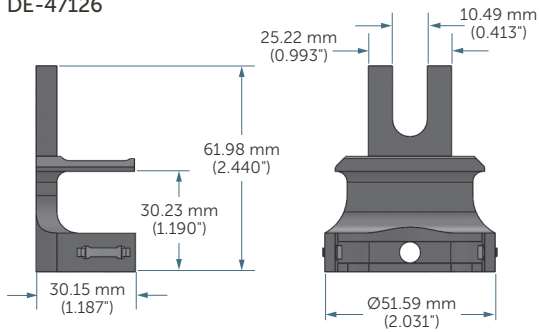
DE-36117



DE-47527



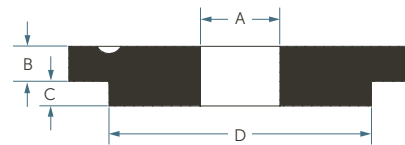
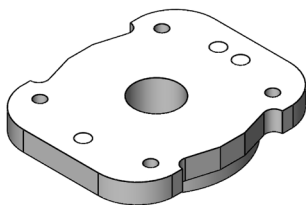
DE-47126



**HOLDERS**

| Part number        | Material        | Style           | Covered | Pins | Notes          |
|--------------------|-----------------|-----------------|---------|------|----------------|
| DE-36117           | Stainless steel | Internal spring | No      | No   | Fixed/floating |
| DE-47126*          | Stainless steel | Internal spring | Yes     | No   | Fixed/floating |
| DE-47527*          | Stainless steel | Internal spring | No      | No   | Fixed/floating |
| DE-48608 extended* | Stainless steel | Internal spring | Yes     | No   | Fixed/floating |

\*Special order product



**INSERTS\***

| Style    | Grade | A                 | B               | C               | D                 |
|----------|-------|-------------------|-----------------|-----------------|-------------------|
| Standard | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") | 3.94 mm (0.16") | Ø41.91 mm (1.65") |

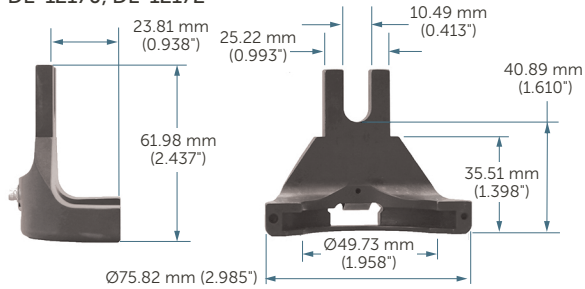
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

Blanks with or without boss; maximum finish of Ø38 mm (1.496")

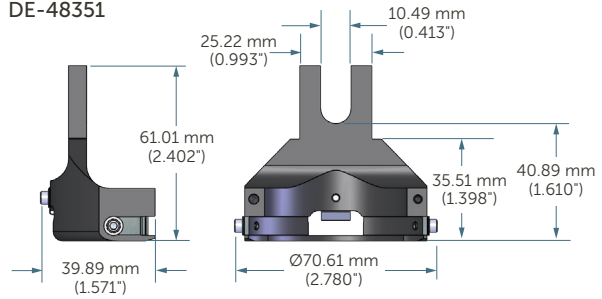
Dimensions are subject to change. Please contact Entegris for more information.

## SIZE 2½" × ¼" WITH FIXED OR FLOATING INSERTS

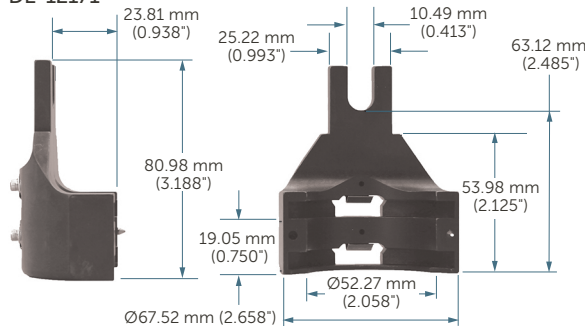
DE-12170, DE-12172



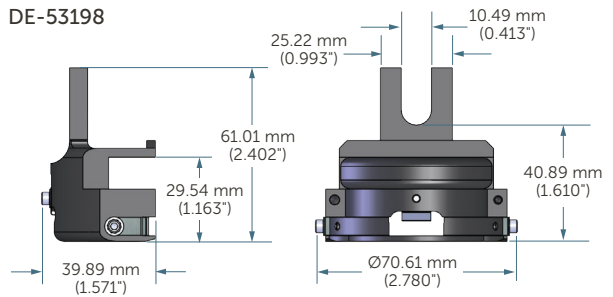
DE-48351



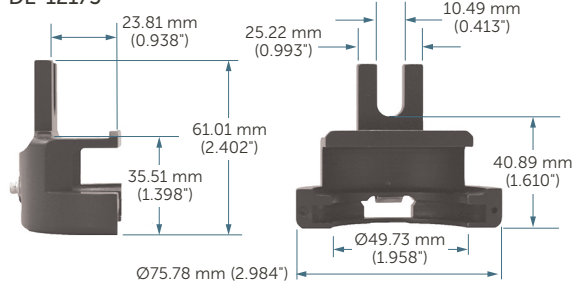
DE-12171



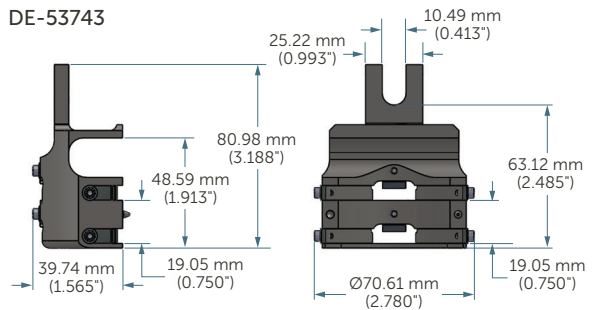
DE-53198



DE-12173



DE-53743



### HOLDERS

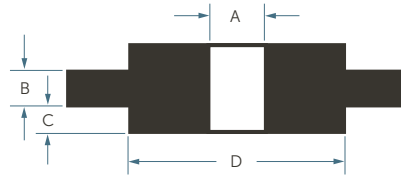
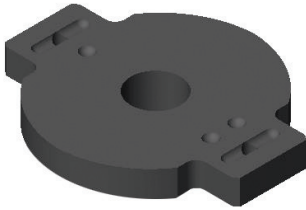
| Part number      | Material     | Style                        | Covered | Pins | Notes          |
|------------------|--------------|------------------------------|---------|------|----------------|
| DE-12170         | Carbon steel | Standard                     | No      | Yes  | -              |
| DE-12172         | Carbon steel | Standard                     | No      | No   | -              |
| DE-12171         | Carbon steel | Double stacked               | No      | Yes  | -              |
| DE-12173         | Carbon steel | Standard                     | Yes     | Yes  | -              |
| DE-48351 (PR-2)  | Carbon steel | Dual function                | Yes     | Yes  | Fixed/floating |
| DE-53198 (PR-2)* | Carbon steel | Dual function                | Yes     | Yes  | Fixed/floating |
| DE-33705*        | Carbon steel | Double stacked               | Yes     | Yes  | -              |
| DE-48977 (PR-2)* | Carbon steel | Dual function/double stacked | No      | Yes  | Fixed/floating |
| DE-53743 (PR-2)* | Carbon steel | Dual function/double stacked | Yes     | Yes  | Fixed/floating |

\*Special order product

Dimensions are subject to change. Please contact Entegris for more information.

**SIZE 2½" × ¼" WITH FIXED OR FLOATING INSERTS (CONTINUED)**

**Fixed**



**Inserts\***

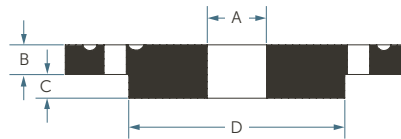
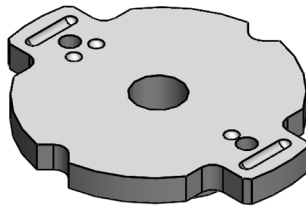
| Style          | Grade | A                 | B               | C               | D                 |
|----------------|-------|-------------------|-----------------|-----------------|-------------------|
| Standard fixed | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") | 6.35 mm (0.25") | Ø46.23 mm (1.82") |

*\*Blank and finished take-out inserts are available. Contact Entegris for more information.*

*63.5 mm diameter (2.5") blanks with or without boss; maximum finish of Ø41 mm (1.614")*

*Dimensions are subject to change. Please contact Entegris for more information.*

**Floating**



**Inserts\***

| Style             | Grade | A                 | B               | C               | D                 |
|-------------------|-------|-------------------|-----------------|-----------------|-------------------|
| Standard floating | GM    | Ø12.70 mm (0.50") | 5.59 mm (0.22") | 6.35 mm (0.25") | Ø46.23 mm (1.82") |

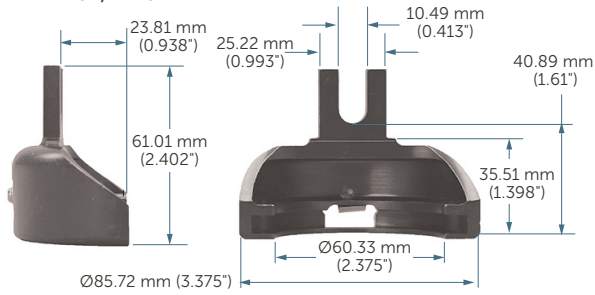
*\*Blank and finished take-out inserts are available. Contact Entegris for more information.*

*63.5 mm diameter (2.5") blanks with or without boss; maximum finish of Ø41 mm (1.614")*

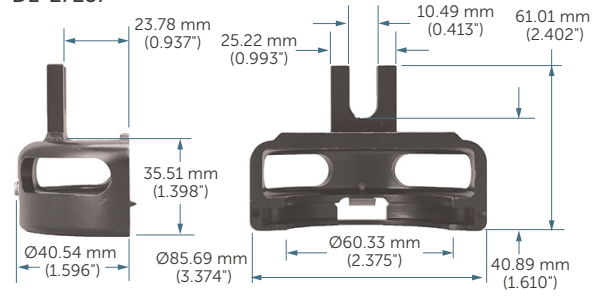
*Dimensions are subject to change. Please contact Entegris for more information.*

## SIZE 3" x 1/4" WITH FIXED INSERTS

DE-12162, 12164

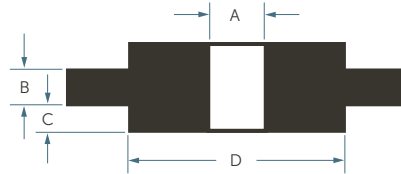
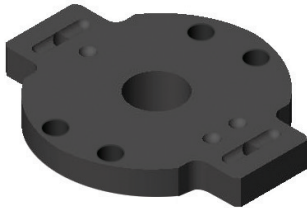


DE-27287



### HOLDERS

| Part number | Material     | Style    | Covered | Pins |
|-------------|--------------|----------|---------|------|
| DE-12162    | Carbon steel | Standard | No      | Yes  |
| DE-12164    | Carbon steel | Standard | No      | No   |
| DE-27287A   | Carbon steel | Standard | Yes     | Yes  |



### INSERTS\*

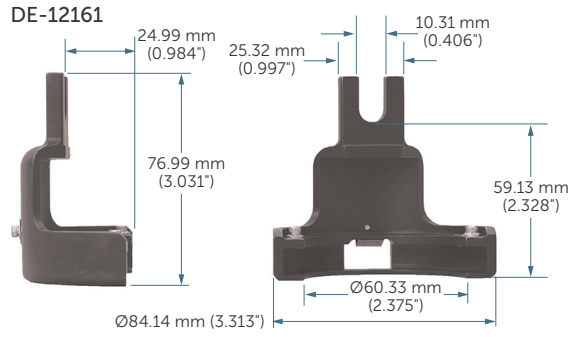
| Style    | Grade | A                 | B               | C                | D                 |
|----------|-------|-------------------|-----------------|------------------|-------------------|
| Standard | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") | 3.18 mm (0.125") | Ø56.77 mm (2.24") |

\*Blank and finished take-out inserts are available. Contact Entegris for more information.

76.2 mm diameter (3") blanks with or without boss; maximum finish of Ø52 mm (2.047")

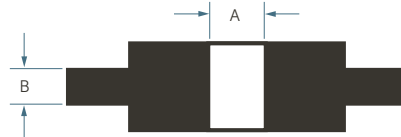
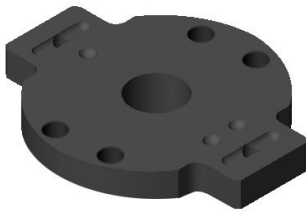
Dimensions are subject to change. Please contact Entegris for more information.

## SIZE 3" x 3/8" WITH FIXED INSERTS



### Holders

| Part number | Material     | Style    | Covered | Pins |
|-------------|--------------|----------|---------|------|
| DE-12161    | Carbon steel | Extended | No      | No   |



### Inserts\*

| Style    | Grade | A                                  | B                |
|----------|-------|------------------------------------|------------------|
| Standard | GM    | $\text{Ø}12.70 \text{ mm}$ (0.50") | 9.52 mm (0.375") |

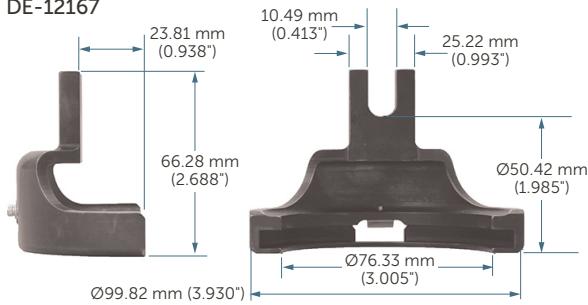
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

76.2 mm diameter (3") blanks with or without boss; maximum finish of  $\text{Ø}52 \text{ mm}$  (2.047")

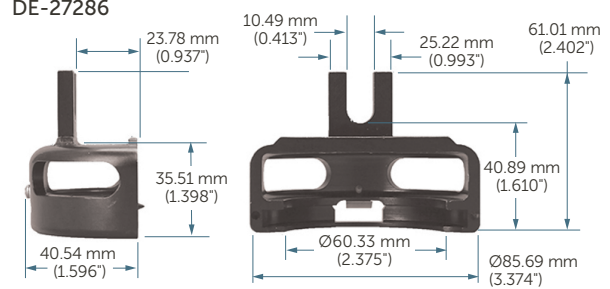
Dimensions are subject to change. Please contact Entegris for more information.

## SIZE 3/4" x 1/4" WITH FIXED OR FLOATING INSERTS

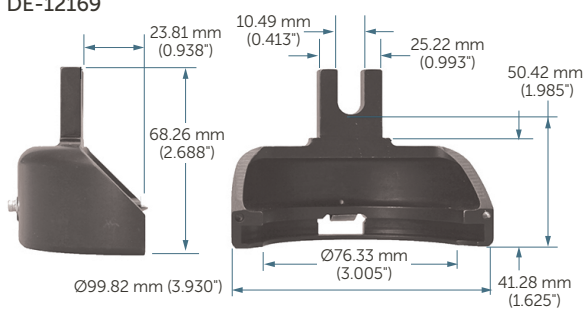
DE-12167



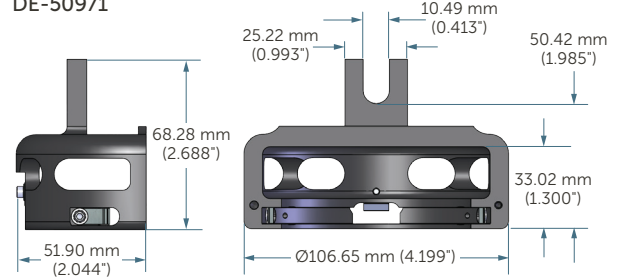
DE-27286



DE-12169

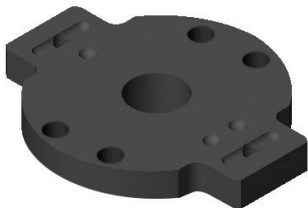


DE-50971



### Holders

| Part number     | Material     | Style         | Covered | Pins | Notes          |
|-----------------|--------------|---------------|---------|------|----------------|
| DE-12167        | Carbon steel | Modified      | No      | No   | -              |
| DE-12169        | Carbon steel | Standard      | No      | Yes  | -              |
| DE-27286        | Carbon steel | Standard      | Yes     | Yes  | -              |
| DE-43645 (PR-2) | Carbon steel | Dual function | No      | Yes  | Fixed/floating |
| DE-50971 (PR-2) | Carbon steel | Dual function | Yes     | Yes  | Fixed/floating |



### Inserts\*

| Style                    | Grade | A                 | B               |
|--------------------------|-------|-------------------|-----------------|
| Standard fixed           | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") |
| Standard floating (PR-2) | GM    | Ø12.70 mm (0.50") | 6.09 mm (0.24") |

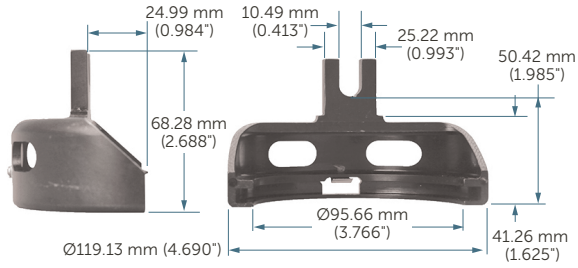
\*Blank and finished take-out inserts are available. Contact Entegris for more information.

92 mm diameter (3.625") blanks with or without boss; maximum finish of Ø68 mm (2.677")

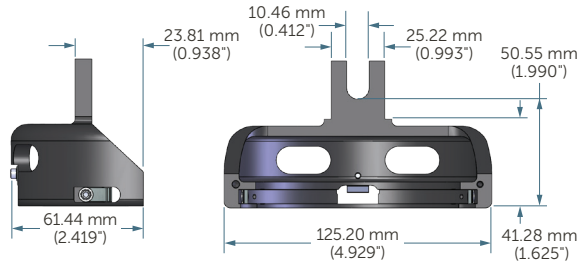
Dimensions are subject to change. Please contact Entegris for more information.

**SIZE 4 3/4" x 1/4" WITH FIXED OR FLOATING INSERTS**

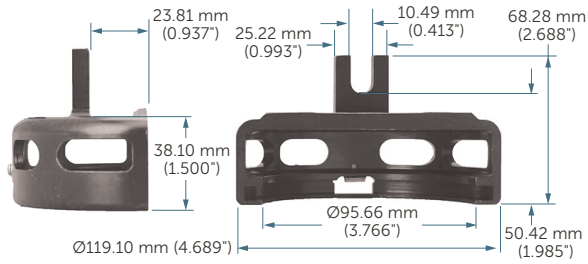
DE-12165



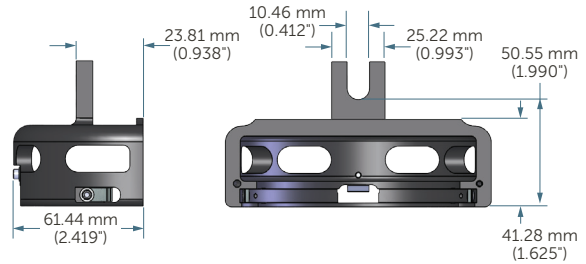
DE-43643



DE-29639

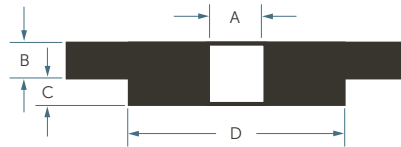
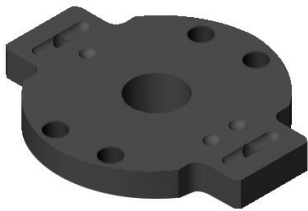


DE-50973



**Holders**

| Part number     | Material     | Style         | Covered | Pins | Notes          |
|-----------------|--------------|---------------|---------|------|----------------|
| DE-12165        | Carbon steel | Standard      | No      | Yes  | –              |
| DE-29639        | Carbon steel | Standard      | Yes     | Yes  | –              |
| DE-43643 (PR-2) | Carbon steel | Dual function | No      | Yes  | Fixed/floating |
| DE-50973 (PR-2) | Carbon steel | Dual function | Yes     | Yes  | Fixed/floating |



**Inserts\***

| Style                    | Grade | A                 | B               | C                | D                 |
|--------------------------|-------|-------------------|-----------------|------------------|-------------------|
| Standard fixed           | GM    | Ø12.70 mm (0.50") | 6.35 mm (0.25") | 3.18 mm (0.125") | Ø90.17 mm (3.55") |
| Standard floating (PR-2) | GM    | Ø12.70 mm (0.50") | 6.09 mm (0.24") | 3.18 mm (0.125") | Ø90.17 mm (3.55") |

\*Blank and finished take-out inserts are available. Contact Entegris for more information.

111.1 mm diameter (4.375") blanks with or without boss; maximum finish of Ø87 mm (3.425")

Dimensions are subject to change. Please contact Entegris for more information.

## REPAIR KITS AND PARTS

| Part number  | Description         | Quantity |
|--|---------------------|----------|
| <b>Standard, double stacked, extended, modified, lightweight holders</b> |                     |          |
| DE-12182   | Slot head screw     | 100      |
|  | Phillips head screw | 100      |
|  | Lock washer         | 100      |
|  | Spring clip         | 100      |
| DE-12183   | Spring clip         | 200      |
| DE-27380   | Socket head screw   | 50       |
|  | Serrated washer     | 50       |
|  | Spring clip         | 50       |
| DE-12899   | Alignment pins      | 100      |

### Dual function holders (PR-2)

|          |                   |     |
|----------|-------------------|-----|
| DE-36380 | Socket head screw | 150 |
|          | Serrated washer   | 150 |
|          | Side spring clip  | 100 |
|          | Back spring clip  | 50  |

### Side mount holders

|          |                     |     |
|----------|---------------------|-----|
| DE-22556 | Slot head screw     | 100 |
|          | Phillips head screw | 100 |
|          | Lock washer         | 100 |
|          | 3/16" ball          | 100 |
|          | 0.020" flat spring  | 100 |
| DE-27276 | Socket head screw   | 50  |
|          | Serrated washer     | 50  |
|          | 3/16" ball          | 50  |
|          | 0.020" flat spring  | 50  |

### Interior spring (ILS-1)

|          |                                 |   |
|----------|---------------------------------|---|
| DE-33031 | Stainless steel removable cover | 1 |
| DE-33054 | Stainless steel spring          | 1 |

Dimensions are subject to change. Please contact Entegris for more information.



#### FOR MORE INFORMATION

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