# 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





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.

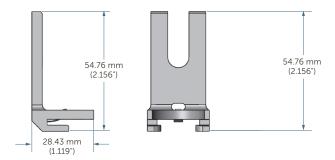
#### Dual Function (PR-2)

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)

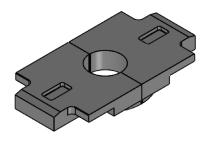
## DE-47074

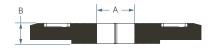


# Holders

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

<sup>\*</sup>Special order product





#### Inserts\*

Style	Grades	A	B – Range 0 to .500"
Standard 18 mm	SR, GM, LT, XL	6.35 mm (0.25")	1.27 mm (0.05")
Standard 22 mm	SR, GM, LT, XL	6.35 mm (0.25")	1.27 mm (0.05")

<sup>\*</sup>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")

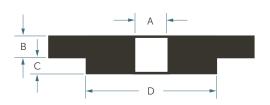
# SIZE 2" × 1/4" WITH FIXED INSERTS

# DE-12154 DE-12156 62.488 mm (2.460") 77.72 mm (3.060") 59.94 mm (2.36") 40.39 mm (1.59") Ø54.81 mm (2.158") Ø60.96 mm (2.40") DE-12155, DE-12158 DE-12159 66.68 mm (2.625") 60.96 mm (2.40") 44.07 mm (1.735") 40.88 mm (1.610") Ø55.93 mm \_ (2.202") Ø60.96 mm \_\_\_\_

#### 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	Α	В	С	D
Standard	GM	Ø12.70 mm (0.50")	6.35 mm (0.25")	1.59 mm (0.063")	Ø35.81 mm (1.41")

<sup>\*</sup>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")

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

#### DE-22512, DE-25974





DE-25947, DE-25975

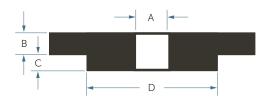




#### Holders

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	В	С	D
Standard	GM	Ø12.70 mm (0.50")	5.59 mm (0.220")	6.35 mm (0.25")	Ø35.81 mm (1.41")

<sup>\*</sup>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")

# SIZE 21/8" × 1/4" WITH FIXED OR FLOATING INSERTS

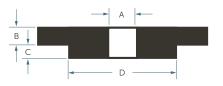
# DE-20860, DE-32191, DE-32193



#### 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	В	C	D
Standard	GM	Ø12.70 mm (0.50")	5.08 mm (0.20")	4.32 mm (0.17")	Ø41.91 mm (1.65")

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

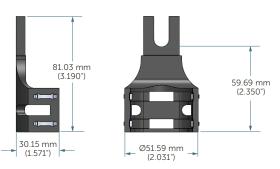
Blanks with or without boss; maximum finish of Ø38 mm (1.496").

# SIZE 21/8" × 1/4" WITH FIXED OR FLOATING INSERTS (ILS)

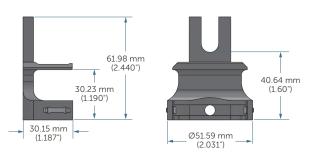
## DE-36117, DE-57664



# DE-47527



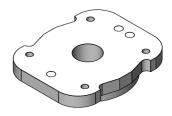
#### DE-47126

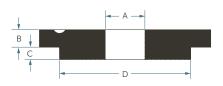


#### Holders

Part number	Material	Style	Covered	Pins	Notes
DE-36117*	Stainless steel	Internal spring	No	No	Fixed/floating
DE-57664	Carbon 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

<sup>\*</sup>Special order product





# Inserts\*

Style	Grade	A	В	С	D
Standard	GM	Ø12.70 mm (0.50")	6.35 mm (0.25")	3.94 mm (0.16")	Ø41.91 mm (1.65")

<sup>\*</sup>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")

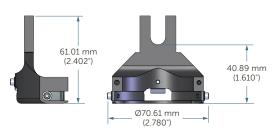
# SIZE 21/2" × 1/4" WITH FIXED OR FLOATING INSERTS

#### DE-12170, DE-12172





DE-48351

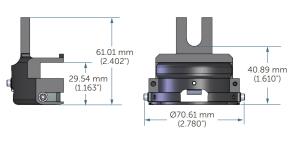


DE-12171





DE-53198

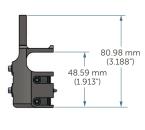


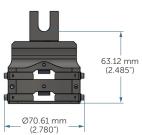
DE-12173





DE-53743





# Holders

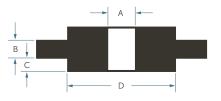
Part number	Material	Style	Covered	Pins	Notes
DE-12170	Carbon steel	Standard	No	Yes	-
DE-12172	Carbon steel	Standard	No	No	-
DE-12171	Carbon steel	Double stacked	No	Yes	-
DE-12173	Carbon steel	Standard	Yes	Yes	_
DE-48351 (PR-2)	Carbon steel	Dual function	Yes	Yes	Fixed/floating
DE-53198 (PR-2)*	Carbon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

<sup>\*</sup>Special order product

# SIZE $2\frac{1}{2}$ " × $\frac{1}{4}$ " WITH FIXED OR FLOATING INSERTS (CONTINUED)

## Fixed





#### Inserts\*

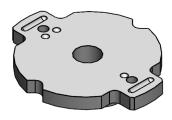
Style	Grade	A	В	С	D
Standard fixed	GM	Ø12.70 mm (0.50")	6.35 mm (0.25")	6.35 mm (0.25")	Ø46.23 mm (1.82")

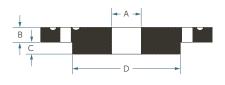
<sup>\*</sup>Blank and finished take-out inserts are available. Contact Entegris for more information.

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	В	С	D
Standard floating	GM	Ø12.70 mm (0.50")	5.59 mm (0.22")	6.35 mm (0.25")	Ø46.23 mm (1.82")

<sup>\*</sup>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")

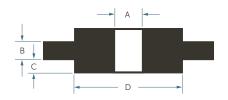
# SIZE 3" × 1/4" WITH FIXED INSERTS



# 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	Α	В	С	D
Standard	GM	Ø12.70 mm (0.50")	6.35 mm (0.25")	3.18 mm (0.125")	Ø56.77 mm (2.24")

<sup>\*</sup>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")

# SIZE 3" × 3/8" WITH FIXED INSERTS

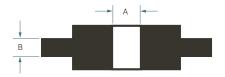
## DE-12161



## Holders

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





# Inserts\*

Style	Grade	A	В
Standard	GM	Ø12.70 mm (0.50")	9.52 mm (0.375")

<sup>\*</sup>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")

# SIZE 35/8" × 1/4" WITH FIXED OR FLOATING INSERTS





#### 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	Α	В
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")

<sup>\*</sup>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")

# SIZE 43/8" × 1/4" WITH FIXED OR FLOATING INSERTS

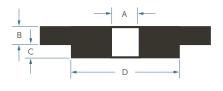




#### Holders

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	В	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")

<sup>\*</sup>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")

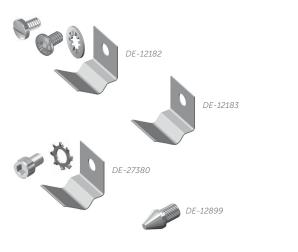
# **REPAIR KITS AND PARTS**

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Part number	Description	Quantity
i ait iiuiiibci	Description	quantity

# Standard, double stacked, extended, modified, lightweight holders

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	



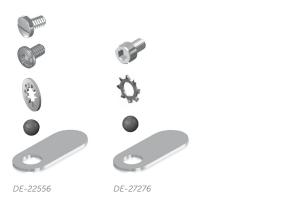
# Dual function holders (PR-2)

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
	<sup>3</sup> / <sub>16</sub> " ball	100
	0.020" flat spring	100
DE-27276	Socket head screw	50
	Serrated washer	50
	<sup>3</sup> / <sub>16</sub> " ball	50
	0.020" flat spring	50



# Interior spring (ILS-1)

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

#### FOR MORE INFORMATION

Please call your Regional Customer Service Representative or Distributor today to learn what our GLASSMATE® products can do for you. Visit <a href="mailto:poco.entegris.com/contact-us">poco.entegris.com/contact-us</a> for the location nearest you.

# TERMS AND CONDITIONS OF SALE

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