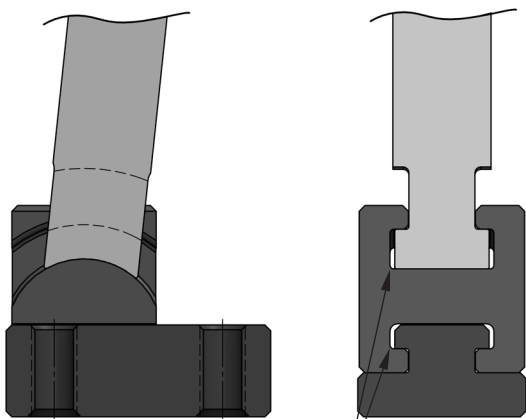
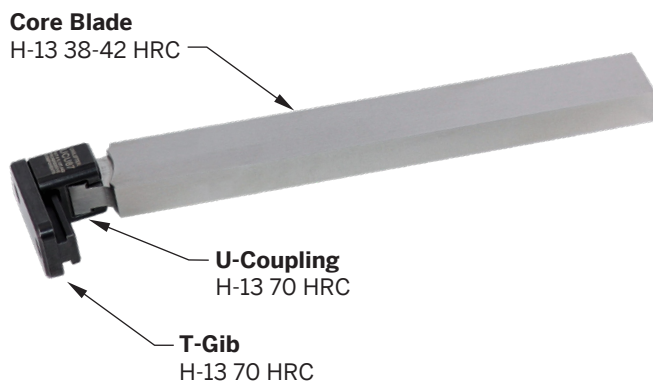


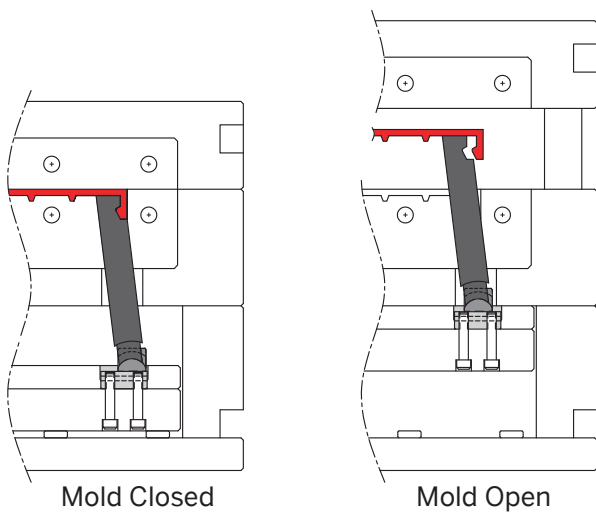


# UNILIFTER® UNDERCUT RELEASE LIFTER

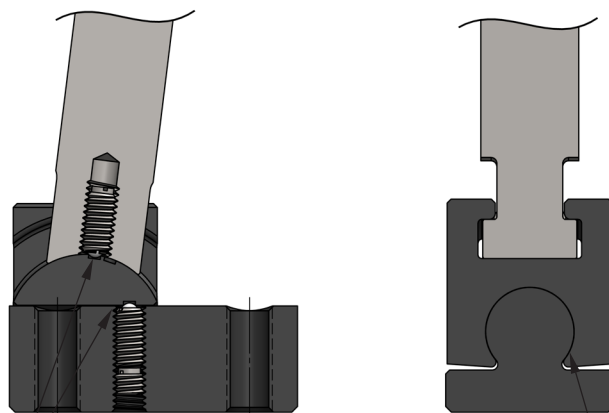
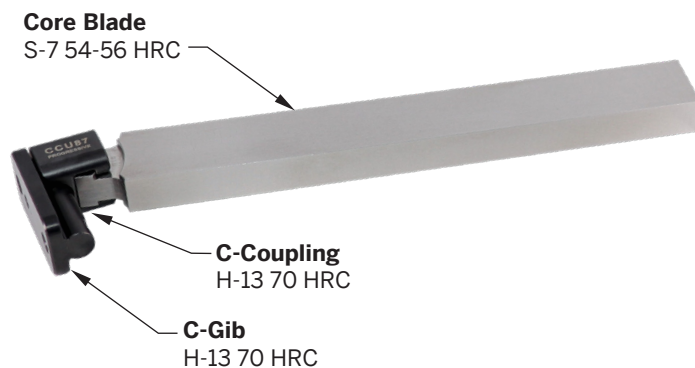
## UNILIFTER: UL-SERIES



The T-slot's large surface contact is designed to withstand extreme force and run smoothly without binding.

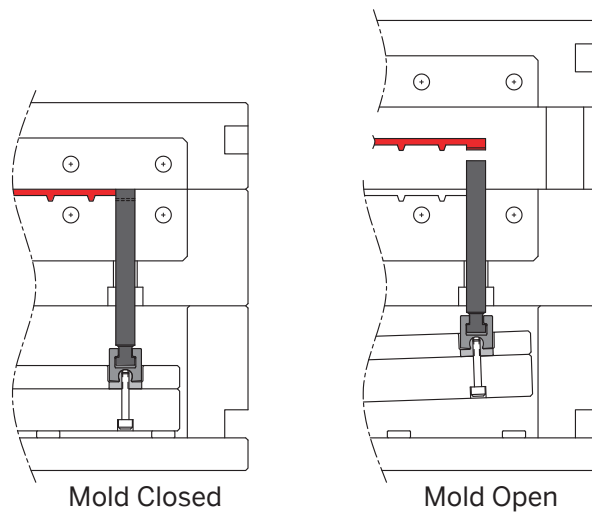


## UNILIFTER: C-SERIES



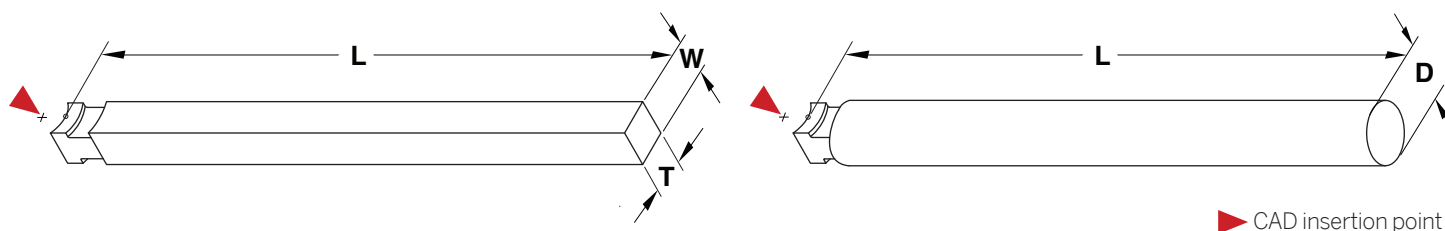
Click-in-place assembly feature sets the components to the required operating position, allowing for simplified insertion into the mold plate pockets.

Self-adjusting cylindrical design to compensate for severe ejector plate misalignment or warping.



# CORE BLADES

## INCH STANDARD SELECTION GUIDE



| CATALOG NUMBERS       |                       |      |                          |                          |                                               |
|-----------------------|-----------------------|------|--------------------------|--------------------------|-----------------------------------------------|
| Flat Core Blades      |                       |      | H-13 38-42 HRC           | S-7 54-56 HRC            |                                               |
| T<br>+0.000<br>-0.001 | W<br>+0.000<br>-0.001 | SIZE | L = 8"<br>+0.06<br>-0.00 | L = 8"<br>+0.06<br>-0.00 | COUPLINGS                                     |
| .385                  | .260                  | Mini | CBS37X25L8               | CBS7X37X25L8             | UL-Series:<br>UCM50<br><br>C-Series:<br>CCM50 |
| .510                  | .260                  |      | CBS50X25L8               | CBS7X50X25L8             |                                               |
| .760                  | .385                  |      | CBS75X37L8               | CBS7X75X37L8             |                                               |

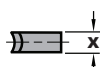
Note: S-7 Core Blades come with the assembly detent installed.

| CATALOG NUMBERS       |                       |      |                          |                           |                                               |
|-----------------------|-----------------------|------|--------------------------|---------------------------|-----------------------------------------------|
| Flat Core Blades      |                       |      | H-13 38-42 HRC           | S-7 54-56 HRC             |                                               |
| T<br>+0.000<br>-0.001 | W<br>+0.000<br>-0.001 | SIZE | L = 8"<br>+0.06<br>-0.00 | L = 14"<br>+0.06<br>-0.00 | COUPLINGS                                     |
| .510                  | .510                  | UL   | CBS50X50L8               | CBS50X50L14               | UL-Series:<br>UCU87<br><br>C-Series:<br>CCU87 |
| .510                  | 1.010                 |      | CBS50X100L8              | CBS50X100L14              |                                               |
| .510                  | 1.510                 |      | —                        | CBS50X150L14              |                                               |
| .760                  | .510                  |      | —                        | CBS75X50L14               |                                               |
| .760                  | 1.510                 |      | CBS75X150L8              | CBS75X150L14              |                                               |
| 1.010                 | .510                  |      | CBS100X50L8              | CBS100X50L14              |                                               |
| 1.510                 | .510                  |      | CBS150X50L8              | CBS150X50L14              |                                               |
| 1.510                 | .760                  |      | CBS150X75L8              | CBS150X75L14              |                                               |
|                       |                       |      |                          |                           |                                               |

Note: S-7 Core Blades come with the assembly detent installed.

| CATALOG NUMBERS       |                       |      |                           |                           |                   |
|-----------------------|-----------------------|------|---------------------------|---------------------------|-------------------|
| Flat Core Blades      |                       |      | H-13 38-42 HRC            |                           |                   |
| T<br>+0.000<br>-0.001 | W<br>+0.000<br>-0.001 | SIZE | L = 10"<br>+0.06<br>-0.00 | L = 18"<br>+0.06<br>-0.00 | COUPLINGS         |
| 1.010                 | 1.010                 | XL   | CBS100X100L10             | CBS100X100L18             | UL-Series: UCX175 |
| 1.010                 | 1.510                 |      | CBS100X150L10             | CBS100X150L18             |                   |
| 1.510                 | 1.010                 |      | CBS150X100L10             | CBS150X100L18             |                   |

| CATALOG NUMBERS       |      |                          |                           |                           |                           |                                     |
|-----------------------|------|--------------------------|---------------------------|---------------------------|---------------------------|-------------------------------------|
| Round Core Blades     |      |                          |                           |                           |                           |                                     |
| D<br>+0.000<br>-0.001 | SIZE | L = 8"<br>+0.06<br>-0.00 | L = 10"<br>+0.06<br>-0.00 | L = 14"<br>+0.06<br>-0.00 | L = 18"<br>+0.06<br>-0.00 | COUPLINGS                           |
| .437                  | Mini | CBS43DL8                 | —                         | —                         | —                         | UL-Series: UCM50<br>C-Series: CCM50 |
| .750                  | UL   | CBS75DL8                 | —                         | CBS75DL14                 | CBS75DL18                 | UL-Series: UCU87<br>C-Series: CCU87 |
| 1.250                 | XL   | —                        | CBS125DL10                | —                         | CBS125DL18                | UL-Series: UCX175                   |

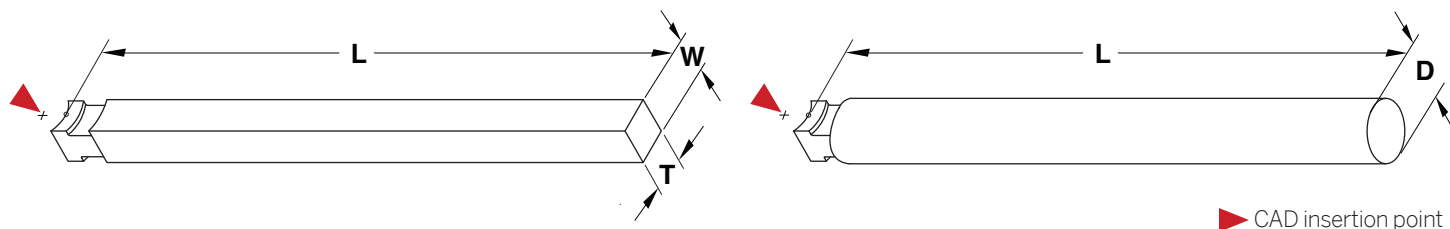


For Core Blades in different materials or mold-ready sizes, refer to the templates in section X.



# CORE BLADES

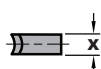
## METRIC STANDARD SELECTION GUIDE



| Flat Core Blades    |                     |                | CATALOG NUMBERS       |                       |                       |                       |                       |                      |
|---------------------|---------------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
|                     |                     |                | H-13<br>48-50 HRC     | DC53<br>58-60 HRC     | H-13 38-42 HRC        |                       | S-7<br>54-56 HRC      |                      |
| T<br>-.005<br>-.015 | W<br>-.005<br>-.015 | SIZE           | L = 200MM<br>+2<br>+0 | L = 200MM<br>+2<br>+0 |                       |                       |                       | COUPLINGS            |
| 6.00                | 6.00                | Metric<br>Mini | CBMMH6X6L200          | CBMMP6X6L200          | —                     | —                     | —                     | UL-Series:<br>UCMM16 |
| 6.00                | 10.00               |                | CBMMH6X10L200         | CBMMP6X10L200         | —                     | —                     | —                     |                      |
| 8.00                | 6.00                |                | CBMMH8X6L200          | CBMMP8X6L200          | —                     | —                     | —                     |                      |
| 8.00                | 8.00                |                | CBMMH8X8L200          | CBMMP8X8L200          | —                     | —                     | —                     |                      |
| 10.00               | 8.00                |                | CBMMH10X8L200         | CBMMP10X8L200         | —                     | —                     | —                     |                      |
| T<br>+.000<br>-.025 | W<br>+.000<br>-.025 | SIZE           |                       |                       | L = 250MM<br>+2<br>+0 | L = 400MM<br>+2<br>+0 | L = 250MM<br>+2<br>+0 | COUPLINGS            |
| 10.25               | 10.25               | Metric         | —                     | —                     | CBMM10X10L250         | —                     | CBMMS7X10X10L250      | UL-Series:<br>UCMM22 |
| 10.25               | 20.25               |                | —                     | —                     | CBMM10X20L250         | —                     | —                     |                      |
| 15.25               | 15.25               |                | —                     | —                     | CBMM15X15L250         | —                     | CBMMS7X15X15L250      |                      |
| 15.25               | 30.25               |                | —                     | —                     | —                     | CBMM15X30L400         | —                     | C-Series:<br>CCMM22  |
| 20.25               | 10.25               |                | —                     | —                     | CBMM20X10L250         | —                     | —                     |                      |
| 20.25               | 20.25               |                | —                     | —                     | —                     | CBMM20X20L400         | —                     |                      |
| 30.25               | 15.25               |                | —                     | —                     | CBMM30X15L400         | —                     | —                     |                      |

Note: S-7 Core Blades come with the assembly detent installed.

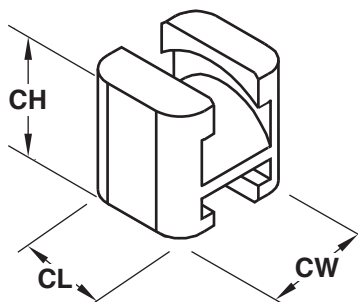
| Round Core Blades   |             | H-13 48-50 HRC        | DC53 58-60 HRC        | H-13 38-42 HRC        | COUPLINGS                             |
|---------------------|-------------|-----------------------|-----------------------|-----------------------|---------------------------------------|
| D<br>-.005<br>-.014 | SIZE        | L = 200MM<br>+2<br>+0 | L = 200MM<br>+2<br>+0 | L = 250MM<br>+2<br>+0 |                                       |
| 8.00                | Metric Mini | CBMMH8DL200           | CBMMP8DL200           | —                     | UL-Series: UCMM16                     |
| D<br>+.000<br>-.025 | SIZE        |                       |                       | L = 250MM<br>+2<br>+0 | COUPLINGS                             |
| 10.00               | Metric      | —                     | —                     | CBMM10DL250           | UL-Series: UCMM22<br>C-Series: CCMM22 |
| 15.00               |             | —                     | —                     | CBMM15DL250           |                                       |



For Core Blades in different materials or mold-ready sizes, refer to the templates in section X.

# UNILIFTER: UL-SERIES COMPONENTS

## U-COUPPLINGS



**M** H-13 **H** Core: 40-44 HRC Surface: 70 HRC  
**S** Black Nitride

### Inch Standard

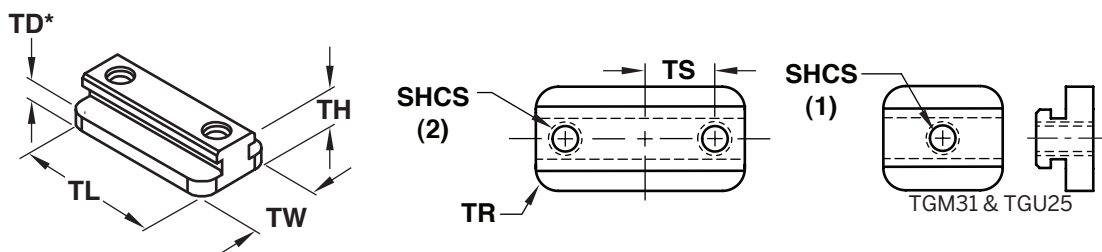
| SIZE | CATALOG NUMBER | CW   | CL   | CH   |
|------|----------------|------|------|------|
| Mini | <b>UCM50</b>   | .50  | .44  | .62  |
| UL   | <b>UCU87</b>   | .87  | .75  | .87  |
| XL   | <b>UCX175</b>  | 1.75 | 1.50 | 1.65 |

**M** H-13 **H** Core: 40-44 HRC Surface: 70 HRC  
**S** Black Nitride

### Metric Standard

| SIZE        | CATALOG NUMBER | CW | CL | CH |
|-------------|----------------|----|----|----|
| Metric Mini | <b>UCMM16</b>  | 16 | 14 | 21 |
| Metric      | <b>UCMM22</b>  | 22 | 18 | 25 |

## T-GIBS



\*TD Includes fitting stock for final adjustments.

### Inch Standard

**M** H-13 **H** Core: 28-32 HRC Surface: 70 HRC **S** Black Nitride

| SIZE | CATALOG NUMBER | TRAVEL ALLOWED | TW<br>+.000<br>-.001 | TH<br>+.010<br>-.000 | TD*<br>+.010<br>-.000 | TR   | TS    | TL<br>+.000<br>-.010 | SHCS<br>(INCLUDED) |
|------|----------------|----------------|----------------------|----------------------|-----------------------|------|-------|----------------------|--------------------|
| Mini | <b>TGM31</b>   | .312           | .500                 | .500                 | .344                  | .093 | —     | .750                 | #10-32 x 1"        |
|      | <b>TGM100</b>  | 1.000          |                      |                      |                       |      | .500  | 1.50                 |                    |
| UL   | <b>TGU25</b>   | .250           | .875                 | .468                 | .219                  | .187 | —     | 1.00                 | 1/4-20 x 3/4"      |
|      | <b>TGU50</b>   | .500           |                      |                      |                       |      | .375  | 1.25                 |                    |
|      | <b>TGU100</b>  | 1.000          |                      |                      |                       |      | .625  | 1.75                 |                    |
|      | <b>TGU150</b>  | 1.500          |                      |                      |                       |      | .750  | 2.25                 |                    |
| XL   | <b>TGX50</b>   | .500           | 1.750                | .615                 | .250                  | .312 | .625  | 2.00                 | 3/8-16 x 1-1/4"    |
|      | <b>TGX100</b>  | 1.000          |                      |                      |                       |      | .875  | 2.50                 |                    |
|      | <b>TGX250</b>  | 2.500          |                      |                      |                       |      | 1.375 | 4.00                 |                    |

### Metric Standard

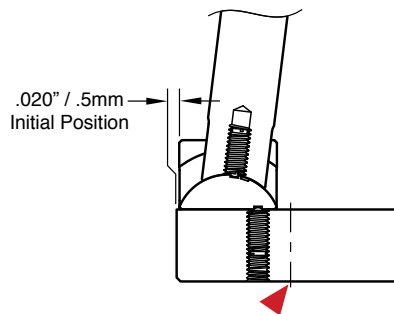
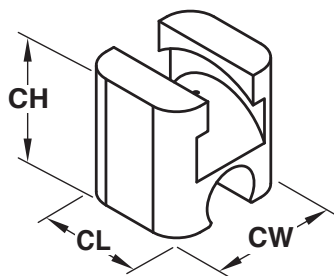
**M** H-13 **H** Core: 28-32 HRC Surface: 70 HRC **S** Black Nitride

| SIZE | CATALOG NUMBER | TRAVEL ALLOWED | TW<br>+.000<br>-.025 | TH<br>+.25<br>-.00 | TD*<br>+.25<br>-.00 | TR  | TS | TL<br>+.00<br>-.25 | SHCS<br>(INCLUDED) |
|------|----------------|----------------|----------------------|--------------------|---------------------|-----|----|--------------------|--------------------|
| Mini | <b>TGMM16</b>  | 18             | 16                   | 13                 | 6                   | 2.5 | 10 | 33                 | M4-.7x20           |
| UL   | <b>TGMM10</b>  | 15             | 22                   | 13                 | 6                   | 5   | 10 | 33                 | M5-0.8 x 20        |
|      | <b>TGMM30</b>  | 34             |                      |                    |                     |     | 15 | 52                 |                    |



# UNILIFTER: C-SERIES COMPONENTS

## C-COUPPLINGS



► CAD insertion point

**M** H-13 **H** Core: 40-44 HRC Surface: 70 HRC

**S** Black Nitride

### Inch Standard

| SIZE | CATALOG NUMBER | CW  | CL  | CH  |
|------|----------------|-----|-----|-----|
| Mini | <b>CCM50</b>   | .50 | .44 | .70 |
| UL   | <b>CCU87</b>   | .87 | .75 | .87 |

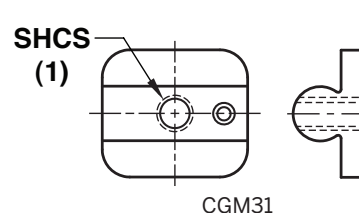
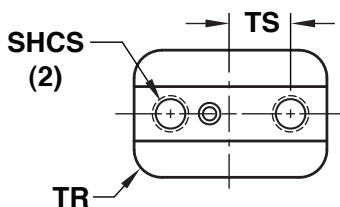
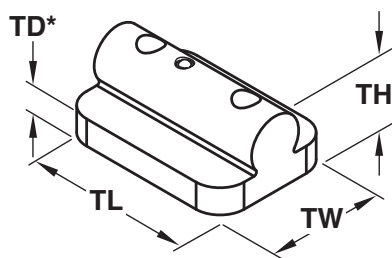
**M** H-13 **H** Core: 40-44 HRC Surface: 70 HRC

**S** Black Nitride

### Metric Standard

| SIZE   | CATALOG NUMBER | CW | CL | CH |
|--------|----------------|----|----|----|
| Metric | <b>CCMM22</b>  | 22 | 18 | 24 |

## C-GIBS



\*TD Includes fitting stock for final adjustments.

### Inch Standard

**M** H-13 **H** Core: 28-32 HRC Surface: 70 HRC **S** Black Nitride

| SIZE | CATALOG NUMBER | TRAVEL ALLOWED | TW<br>+.000<br>-.001 | TH<br>+.010<br>-.000 | TD*<br>+.010<br>-.000 | TR   | TS   | TL<br>+.000<br>-.010 | SHCS<br>(INCLUDED) |
|------|----------------|----------------|----------------------|----------------------|-----------------------|------|------|----------------------|--------------------|
| Mini | <b>CGM31</b>   | .312           | .500                 | .550                 | .250                  | .093 | -    | .750                 | #10-32 x 1"        |
|      | <b>CGM100</b>  | 1.000          |                      |                      |                       |      | .500 | 1.50                 |                    |
| UL   | <b>CGU50</b>   | .500           | .875                 | .540                 | .187                  | .187 | .375 | 1.25                 | 1/4-20 x 3/4"      |
|      | <b>CGU100</b>  | 1.000          |                      |                      |                       |      | .625 | 1.75                 |                    |

Note: Screw thread is not through top of the C-Gib on the Mini sizes.

### Metric Standard

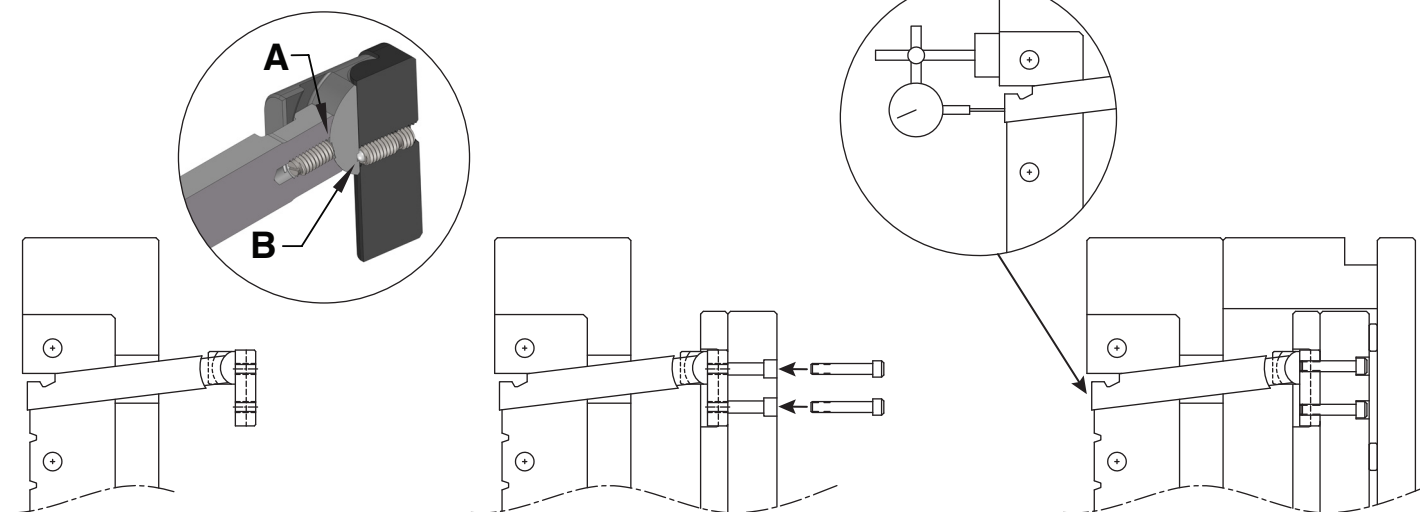
**M** H-13 **H** Core: 28-32 HRC Surface: 70 HRC **S** Black Nitride

| SIZE | CATALOG NUMBER | TRAVEL ALLOWED | TW<br>+.000<br>-.025 | TH<br>+.25<br>-.00 | TD*<br>+.25<br>-.00 | TR | TS | TL<br>+.00<br>-.25 | SHCS<br>(INCLUDED) |
|------|----------------|----------------|----------------------|--------------------|---------------------|----|----|--------------------|--------------------|
| UL   | <b>CGMM10</b>  | 15             | 22                   | 15                 | 6                   | 5  | 10 | 33                 | M5-0.8 x 20        |

Note: C-Series Gibs come with the assembly detent installed.

# UL-SERIES/C-SERIES LIFTER SYSTEMS

## INSTALLATION INSTRUCTIONS



**1** Install Core Blade, C-Gib and C-Coupling into the mold base. Rotate Coupling to click into position A and slide Gib to position B.

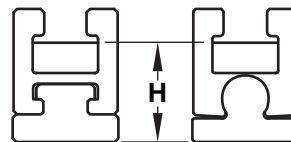
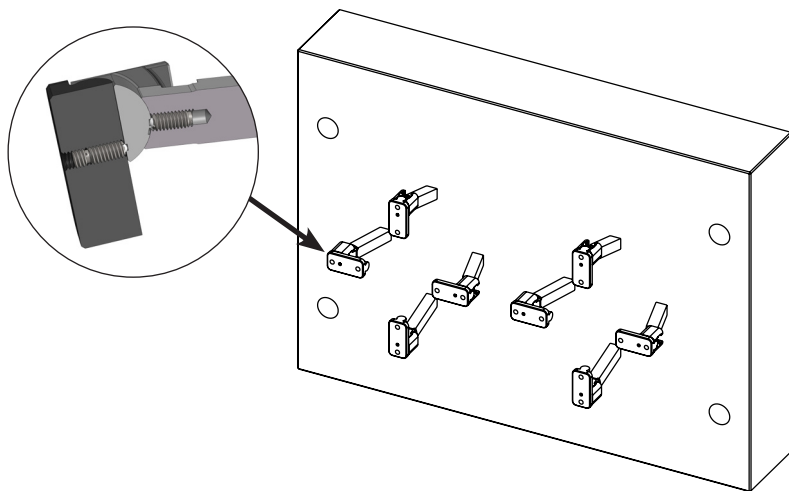
**2** Assemble the ejector plates and fasten the C-Gib into the pocket.

**3** With the mold assembled, check to verify final position of the lifter. Adjust by grinding the back of the C-Gib as required.

### C-Series Lifter Features:

Assembly detents allow the toolmaker to set the Core Blade, C-Coupling and C-Gib to the correct angle and position, allowing easy assembly into the mold pocket without parts sliding out of position.

Maintenance Option: Should ejector plates warp over time, the C-Series Gib and Coupling can directly replace the UniLifter Series without altering the Core Blades.



| SIZE   | H     |
|--------|-------|
| Mini   | .719" |
| UL     | .812" |
| Metric | 22mm  |

### UL-Series & C-Series Application Guidelines:

- Typical Core Blade angle is 5-10°, and for greater angles, Lifter Guides are recommended.
- Lifter Guides are recommended if less than half of the Core Blade is bearing in the insert.
- Typical clearance is .001"-.0015" (.02-.04 mm), or a 3° taper on the Core Blade T & W to eliminate contact and friction.
- Core Blades are interchangeable between the UL-Series and C-Series.
- For any questions or unusual applications, contact Progressive for an application review at [tech@procomps.com](mailto:tech@procomps.com).