

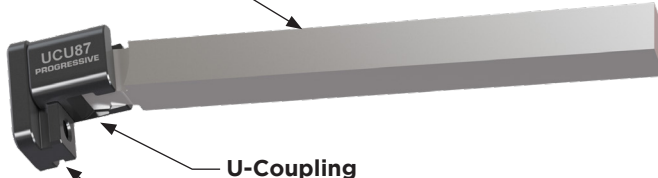


UNILIFTER® UNDERCUT RELEASE LIFTER

UNILIFTER: UL-SERIES

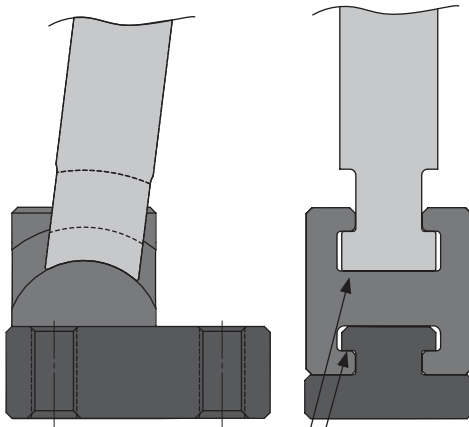
Core Blade

H-13, 38-42 HRC

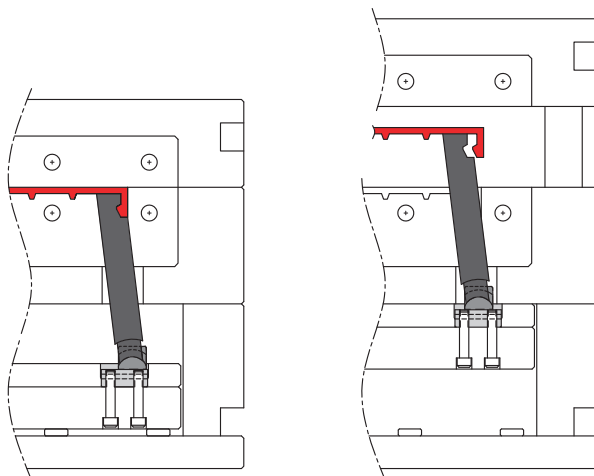


U-Coupling
H-13, 70 HRC

T-Gib
H-13, 70 HRC



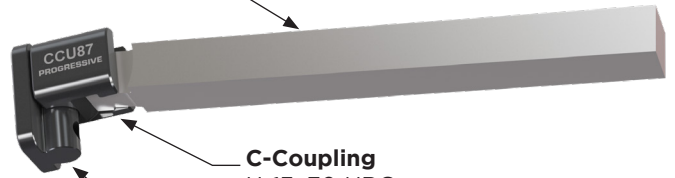
The T-slot's large surface contact is designed to withstand extreme force and run smoothly without binding.

**Mold Closed****Mold Open**

UNILIFTER: C-SERIES

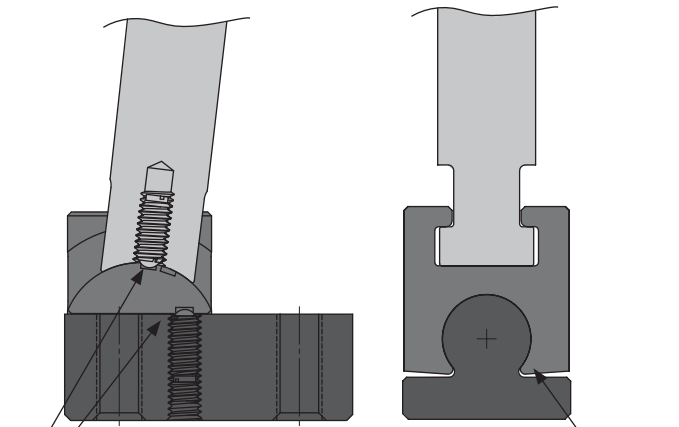
Core Blade

S-7, 54-56 HRC



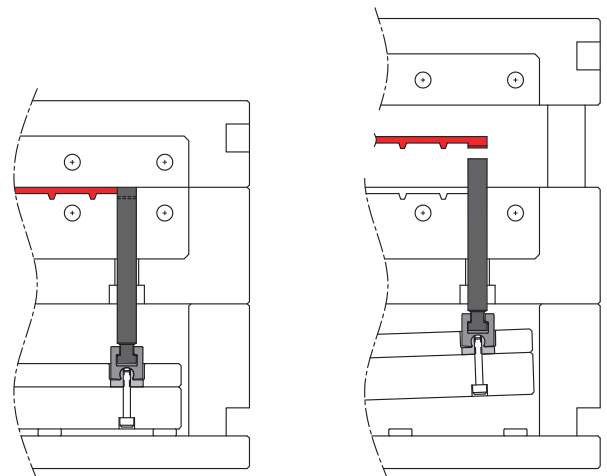
C-Coupling
H-13, 70 HRC

C-Gib
H-13, 70 HRC



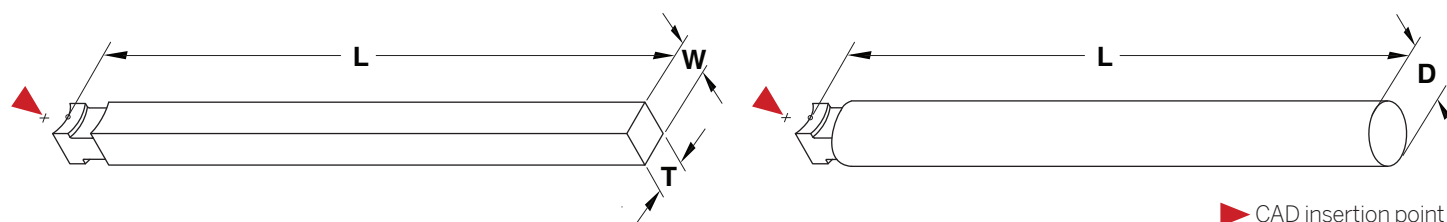
Click-in-place assembly feature sets the components to the required operating position, allowing for simplified insertion into the mold plate pockets.

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

**Mold Closed****Mold Open**

CORE BLADES

INCH STANDARD



| Flat Core Blades | | | H-13 38-42 HRC | | S-7 54-56 HRC | | COUPLINGS |
|---------------------|---------------------|--------|----------------------|-----------------------|----------------------|-----------------------|-------------------------------------|
| T +.000 -.001 | W +.000 -.001 | SERIES | L=8" +.06 -.00 | L=18" +.06 -.00 | L=8" +.06 -.00 | L=18" +.06 -.00 | |
| .385 | .260 | Mini | CBS37X25L8 | CBS37X25L18 | CBS7X37X25L8 | CBS7X37X25L18 | UL-Series: UCM50 C-Series: CCM50 |
| .510 | .260 | | CBS50X25L8 | CBS50X25L18 | CBS7X50X25L8 | CBS7X50X25L18 | |
| .760 | .385 | | CBS75X37L8 | CBS75X37L18 | CBS7X75X37L8 | CBS7X75X37L18 | |

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

| Flat Core Blades | | | H-13 38-42 HRC | | | S-7 54-56 HRC | | | COUPLINGS |
|---------------------|---------------------|--------|----------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-------------------------------------|
| T +.000 -.001 | W +.000 -.001 | SERIES | L=8" +.06 -.00 | L=14" +.06 -.00 | L=20" +.06 -.00 | L=8" +.06 -.00 | L=14" +.06 -.00 | L=20" +.06 -.000 | |
| .510 | .510 | UL | CBS50X50L8 | CBS50X50L14 | CBS50X50L20 | CBS7X50X50L8 | CBS7X50X50L14 | CBS7X50X50L20 | UL-Series: UCU87 C-Series: CCU87 |
| .510 | .760 | | CBS50X75L8 | CBS50X75L14 | CBS50X75L20 | CBS7X50X75L8 | CBS7X50X75L14 | CBS7X50X75L20 | |
| .510 | 1.010 | | CBS50X100L8 | CBS50X100L14 | CBS50X100L20 | CBS7X50X100L8 | CBS7X50X100L14 | CBS7X50X100L20 | |
| .510 | 1.510 | | — | CBS50X150L14 | CBS50X150L20 | — | — | — | |
| .760 | .510 | | — | CBS75X50L14 | CBS75X50L20 | — | — | — | |
| .760 | 1.510 | | CBS75X150L8 | CBS75X150L14 | CBS75X150L20 | — | CBS7X75X150L14 | CBS7X75X150L20 | |
| 1.010 | .510 | | CBS100X50L8 | CBS100X50L14 | CBS100X50L20 | — | CBS7X100X50L14 | CBS7X100X50L20 | |
| 1.510 | .510 | | CBS150X50L8 | CBS150X50L14 | CBS150X50L20 | — | — | — | |
| 1.510 | .760 | | CBS150X75L8 | CBS150X75L14 | CBS150X75L20 | — | CBS7X150X75L14 | CBS7X150X75L20 | |

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

| Flat Core Blades | | | H-13 38-42 HRC | | COUPLINGS |
|---------------------|---------------------|--------|-----------------------|-----------------------|-------------------|
| T +.000 -.001 | W +.000 -.001 | SERIES | L=10" +.06 -.00 | L=18" +.06 -.00 | |
| 1.010 | 1.010 | XL | CBS100X100L10 | CBS100X100L18 | UL-Series: UCX175 |
| 1.010 | 1.510 | | CBS100X150L10 | CBS100X150L18 | |
| 1.510 | 1.010 | | CBS150X100L10 | CBS150X100L18 | |

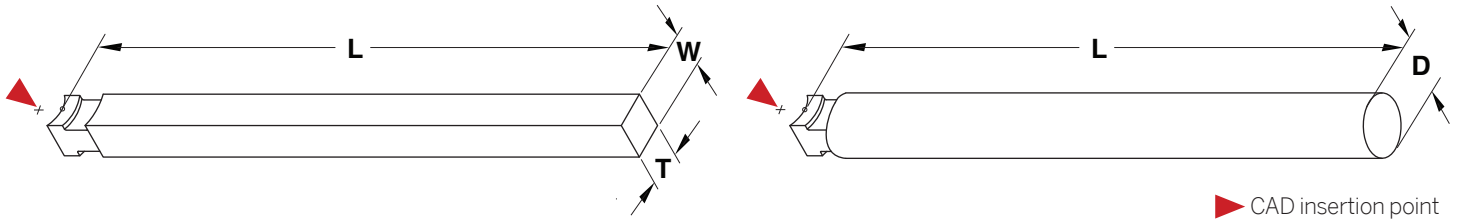
| Round Core Blades | | H-13 38-42 HRC | | | | | COUPLINGS |
|---------------------|--------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------------|
| D +.000 -.001 | SERIES | L=8" +.06 -.00 | L=10" +.06 -.00 | L=14" +.06 -.00 | L=18" +.06 -.00 | L=24" +.06 -.00 | |
| .437 | Mini | CBS43DL8 | — | — | CBS43DL18 | — | UL-Series: UCM50 C-Series: CCM50 |
| .500 | | CBS50DL8 | — | — | CBS50DL18 | — | |
| .750 | UL | CBS75DL8 | — | CBS75DL14 | CBS75DL18 | CBS75DL24 | UL-Series: UCU87 C-Series: CCU87 |
| 1.250 | XL | — | CBS125DL10 | — | CBS125DL18 | — | UL-Series: UCX175 |

For Core Blades in different materials or sizes, refer to the templates at procomps.com.



CORE BLADES

METRIC STANDARD



► CAD insertion point

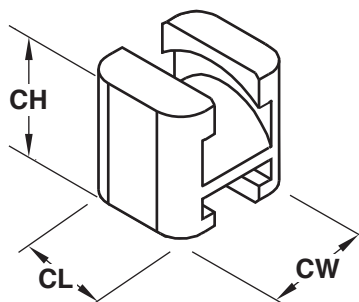
| Flat Core Blades | | | H-13 48-50 HRC | DC53 58-60 HRC | H-13 38-42 HRC | | S-7 54-56 HRC | COUPLINGS |
|---------------------|---------------------|-------------|---------------------|-------------------|---------------------|---------------------|---------------------|----------------------|
| T -.005 -.015 | W -.005 -.015 | SERIES | L=200MM +2 +0 | | | | L=250MM +2 +0 | |
| 6.00 | 6.00 | Metric Mini | CBMMH6X6L200 | CBMMP6X6L200 | — | — | — | UL-Series: 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 | — | — | — | |
| 10.00 | 10.00 | Metric | — | — | — | — | CBMMS7X10X10L250 | C-Series: CCMM22 |
| 15.00 | 15.00 | | — | — | — | — | CBMMS7X15X15L250 | |
| T +.000 -.025 | W +.000 -.025 | SERIES | | | L=250MM +2 +0 | L=400MM +2 +0 | | COUPLINGS |
| 10.25 | 10.25 | Metric | — | — | CBMM10X10L250 | — | — | UL-Series: UCMM22 |
| 10.25 | 20.25 | | — | — | CBMM10X20L250 | — | — | |
| 15.25 | 15.25 | | — | — | CBMM15X15L250 | — | — | |
| 15.25 | 30.25 | | — | — | — | CBMM15X30L400 | — | C-Series: 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 | |
|---------------------|-------------|---------------------|----------------|---------------------|---------------------------------------|
| D -.005 -.014 | SERIES | L=200MM +2 +0 | | | COUPLINGS |
| 8.00 | Metric Mini | CBMMH8DL200 | CBMMP8DL200 | — | UL-Series: UCMM16 |
| D +.000 -.025 | SERIES | | | L=250MM +2 +0 | COUPLINGS |
| 10.00 | Metric | — | — | CBMM10DL250 | UL-Series: UCMM22 C-Series: CCMM22 |
| 15.00 | | — | — | CBMM15DL250 | |

UNILIFTER: UL-SERIES COMPONENTS

U-COUPPLINGS



Inch Standard

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

S Black Nitride

| SERIES | CATALOG NUMBER | CW | CL | CH |
|--------|----------------|------|------|------|
| Mini | UCM50 | .50 | .44 | .62 |
| UL | UCU87 | .87 | .75 | .87 |
| XL | UCX175 | 1.75 | 1.50 | 1.65 |

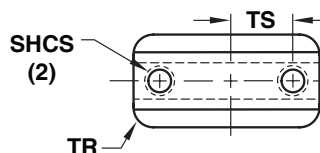
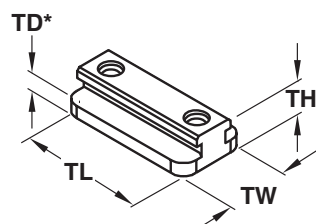
Metric Standard

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

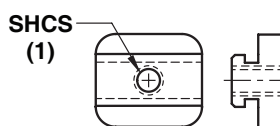
S Black Nitride

| SERIES | CATALOG NUMBER | CW | CL | CH |
|-------------|----------------|----|----|----|
| Metric Mini | UCMM16 | 16 | 14 | 21 |
| Metric UL | UCMM22 | 22 | 18 | 25 |

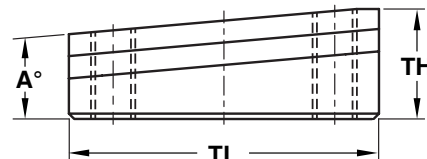
T-GIBS



TGM31 & TGU25



TGU100-5 & TGU100-10



*TD Includes fitting stock for final adjustments.

Inch Standard

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

| SERIES | CATALOG NUMBER | TRAVEL ALLOWED | TW +.000 -.001 | TH +.010 -.000 | TD* +.010 -.000 | TR | TS ±.01 | TL +.000 -.010 | A ANGLE | SHCS (INCLUDED) | | |
|--------|-------------------|-------------------|----------------------|----------------------|-----------------------|------|------------|----------------------|------------|--------------------|--|--|
| Mini | TGM31 | .312 | .500 | .500 | .344 | .093 | — | .750 | — | #10-32 x 1 | | |
| | TGM100 | 1.000 | | | | | .50 | 1.50 | — | | | |
| UL | TGU25 | .250 | .875 | .468 | .219 | .187 | — | 1.00 | — | 1/4-20 x 3/4 | | |
| | TGU50 | .500 | | | | | .37 | 1.25 | — | | | |
| | TGU100 | 1.000 | | .62 | | | 1.75 | — | | | | |
| | TGU100-5 | 1.000 | | | | | | .610 | 5° | | | |
| | TGU100-10 | 1.000 | | | | | | .750 | 10° | | | |
| | TGU150 | 1.500 | | .468 | | | .75 | 2.25 | — | | | |
| XL | TGX50 | .500 | 1.750 | .615 | .250 | .312 | .62 | 2.00 | — | 3/8-16 x 1-1/4 | | |
| | TGX100 | 1.000 | | | | | .87 | 2.50 | — | | | |
| | TGX250 | 2.500 | | | | | 1.37 | 4.00 | — | | | |

Metric Standard

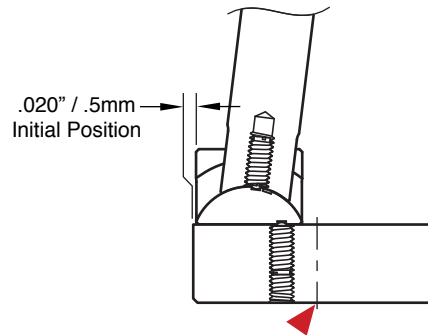
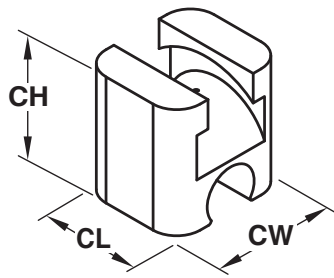
M H-13 **H** Core: 40-44 HRC Surface: 70 HRC **S** Black Nitride

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



UNILIFTER: C-SERIES COMPONENTS

C-COUPPLINGS



Inch Standard

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

S Black Nitride

| SERIES | CATALOG NUMBER | CW | CL | CH |
|--------|----------------|-----|-----|-----|
| Mini | CCM50 | .50 | .44 | .70 |
| UL | CCU87 | .87 | .75 | .87 |

Metric Standard

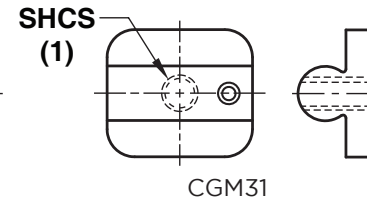
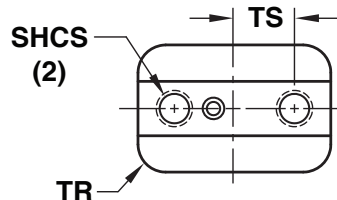
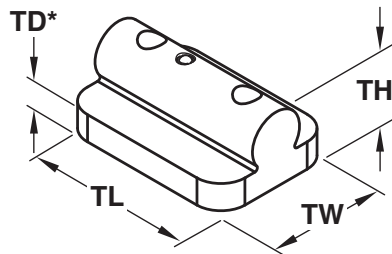
M H-13 **H** Core: 40-44 HRC Surface: 70 HRC

S Black Nitride

| SIZE | CATALOG NUMBER | CW | CL | CH |
|--------|----------------|----|----|----|
| Metric | CCMM22 | 22 | 18 | 24 |

► CAD insertion point

C-GIBS



*TD Includes fitting stock for final adjustments.

Inch Standard

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

| SERIES | CATALOG NUMBER | TRAVEL ALLOWED | TW +.000 -.001 | TH +.010 -.000 | TD* +.010 -.000 | TR | TS ±.01 | TL +.000 -.010 | SHCS (INCLUDED) |
|--------|----------------|----------------|----------------------|----------------------|-----------------------|------|------------|----------------------|--------------------|
| Mini | CGM31 | .312 | .500 | .550 | .250 | .093 | — | .750 | #10-32 x 1 |
| | CGM100 | 1.000 | | | | | .50 | 1.50 | |
| UL | CGU50 | .500 | .875 | .540 | .187 | .187 | .37 | 1.25 | 1/4-20 x 3/4 |
| | CGU100 | 1.000 | | | | | .62 | 1.75 | |

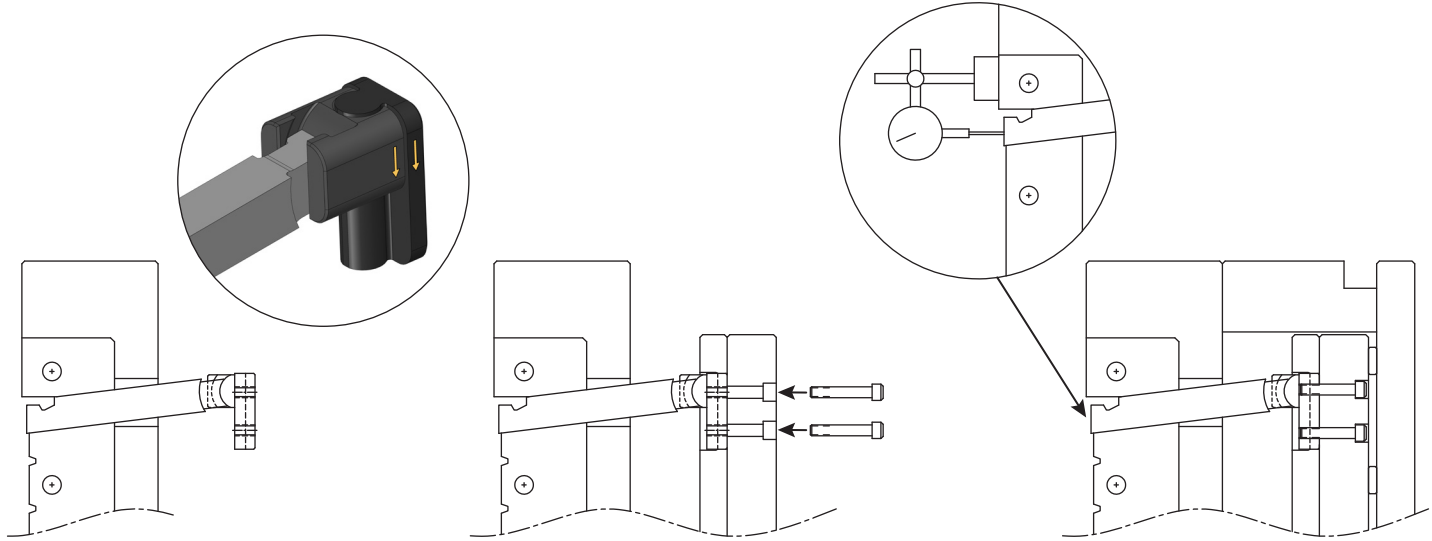
Metric Standard

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

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

APPLICATION GUIDELINES

- C-Series Gibs come with the assembly detent installed.
- Screw thread is not through top of the C-Gib on the Mini sizes.

C-SERIES LIFTER SYSTEMS**INSTALLATION INSTRUCTIONS / APPLICATION GUIDELINES**

1 Install Core Blade, C-Gib and C-Coupling into the mold base. Align arrows to orient with ejection travel.

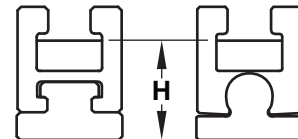
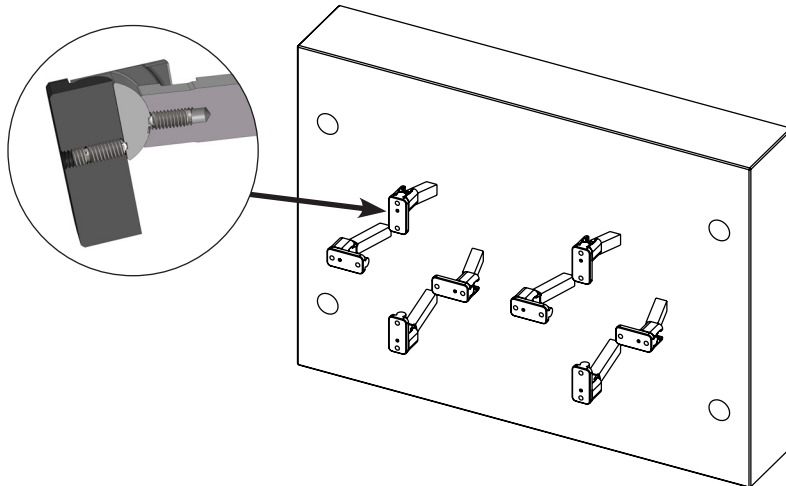
2 Assemble the ejector plates and fasten the C-Gib into the pocket.

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.



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

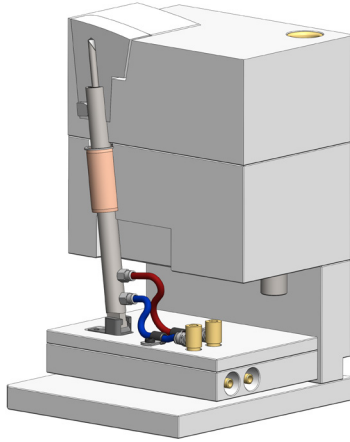
UL-SERIES & C-SERIES APPLICATION GUIDELINES

- Typical Core Blade angle is 5-10°. For greater angles, Lifter Guides are recommended.
- Lifter Guides are also recommended if less than half of the Core Blade is bearing in the insert. Refer to page H-10 for Guides.
- 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.
- If treating the S-7 Core Blades, the assembly ball plunger should be removed prior to processing.

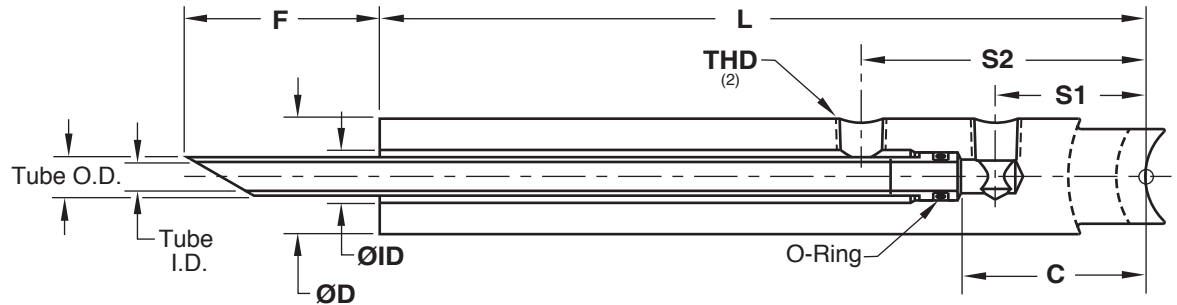


UNILIFTER WITH COOLING CHANNEL

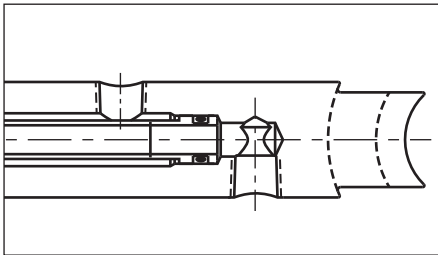
COOLED LIFTER ASSEMBLY



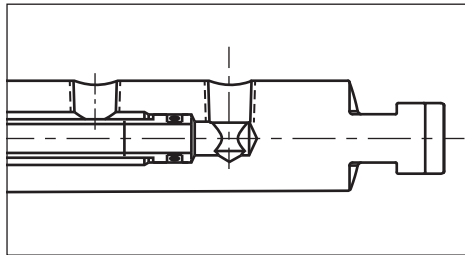
Thread Orientation "A"
Ports aligned, parallel with heel.



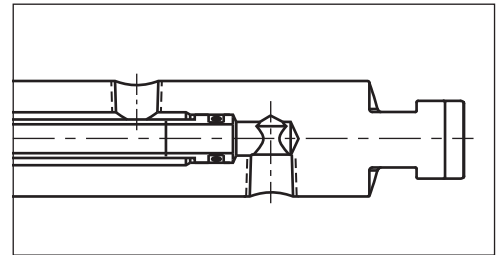
Thread Orientation "B"
Ports opposite, parallel with heel.



Thread Orientation "C"
Ports aligned, perpendicular with heel.



Thread Orientation "D"
Ports opposite, perpendicular with heel.



M H-13 **H** 38-42 HRC

| D NOMINAL CORE BLADE DIAMETER | CATALOG NUMBER PREFIX | THD (NPT) | TUBE I.D. | TUBE O.D. | ID | S1 | S2 | C | L MAX | SERIES | U-COUPLING |
|----------------------------------------|-----------------------------|--------------|--------------|--------------|------|------|------|------|----------|--------|------------|
| 3/4 | CBC75D | 1/16 | .208 | .238 | .344 | .88 | 1.63 | 1.13 | 24 | UL | UCU87 |
| 1-1/4 | CBC125D | 1/4 | .288 | .312 | .437 | 1.25 | 2.25 | 1.56 | 18 | XL | UCX175 |

Assemblies include:

- Core Blade machined to accept all cooling items as shown above.
- High Flow Tube (1) cut to length with a 30° angle as shown.
- Buna O-Ring (1)
 - CBC75D uses -008.
 - CBC125D uses -010.

To Order:

- Create the catalog number with the part parameters as shown below.
- Submit this catalog number to customerservice@procomps.com with the quantity required.

CBCXXD - LX.XXX - FX.XX - X
 Prefix (From table) L & Required Length (3 Decimals) F & Tube Length (2 Decimals) Thread Orientation (A, B, C, or D)

Ex. CBC75DL9.560F1.50-A or CBC125DL22.250F2.25-B

High Flow Tubes and Cooled Core Blades can be ordered individually. Contact Customer Service for a quotation. Refer to section E for additional cooling connection components.