Cross Tool & Manufacturing, Incorporated

Providing Quality Products, Competitive Pricing, and Exceptional Service Since 1980

C-SERIES CATALOG
New for 2019: More sizes added
Now includes: 08/09, 08/10, 84/90, 10/12, 10/14 and 11/11
C-Series inserts introduced in 2017

New products, New options, More choices.
* Bolted ears plates with tubular dowels.
* 2 choices of guided ejection (Simple or Guided Support pillars).
* Return pins, no return pins, or just basic blank ejector plates.
* Standardized Stripper and 3-Plate Mold Inserts.

See our main catalog or go on-line crosstool.com to see our standard Frames and Molding Inserts up to the 14/16 U-FRAME and H-STYLE INSERTS
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Cross Tool and Manufacturing has been building Plastic Injection Molding Inserts and Frames since the mid-1980’s. Over the last several years we have been continually improving our processes, quality, and capacity. This makes possible the addition of the (C-SERIES INSERTS) to our product line. We still make all of our products in the USA with local labor and suppliers.

C-SERIES:

Cross Tool: We are known for our high quality and great prices.

Comparable: Compares with other companies offering complete assemblies. No need to change your lay-out. We are now offering our 08/09 and 08/10 with 1/2” leader pins. The Pin locations have moved on the 08/09 and 08/10, but stayed the same on our 84/90, 10/12, 10/14 and 11/11 Inserts. We have also added the slotted full width sides to Standard solid (C-XSU Series) inserts.

Choices: Off the shelf availability of 5 standard options for return pins and guided ejection. We also offer standardized three plate, and stripper plate inserts.

Competitive: Better pricing and more options.

Cost effective: Let us save you time and money by combining pockets, waterlines, bolted ear-plates, guided ejector plates, and return pins as options during the manufacturing of your inserts.

Yes, We still build all of our standard Products. U-Frames and inserts through 14/16 size, and H-Frame inserts. We do not build H-Frames.
C-SERIES INTERCHANGEABLE MOLDING INSERTS

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08/09 C-XSU  SOLID INSERT

ADDITIONAL OPTIONS:

(Return Only) Includes all return pin machining, with cut to size return pins and bolted ejector plates.

(Guided Only) Uses shoulder bolts and aluminum bronze bushings. A good quality guided system that incorporates an ejector plate retention system. Includes bolted ejector plates, but no return pins.

(Simple Guided) Uses shoulder bolts and aluminum bronze bushings. A good quality guided system, that incorporates an ejector plate retention system. Includes all the features of the return pin only.

(Guided Support Pillar) Uses high precision support pillars and aluminum bronze bushings to provide a superior quality guided ejector system. Incorporates an ejector plate retention system. Includes all the features of the return only.

ORDERING EXAMPLES:
08/09 C-XSU-224-RO
08/09 C-XSU-227-GSP
08/09 C-XSU-230-SG
08/09 C-XSU  5.0 X 8.0 FITS 08/09 U-FRAME

SIMPLE GUIDED

CENTERED EJECTOR PLATES
 THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE.

ORDERING EXAMPLES:
08/09 C-SLU-284-RO  08/09 C-SLU-287-GSP

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NOTE: THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:
- **RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.
- **GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.
- **SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.
- **GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
08/09 C-SLU  5.0 X 8.0 FITS 08/09 U-FRAME

SIMPLE GUIDED

CENTERED EJECTOR PLATES

(8) 3/8-16 CAPSCREWS

(4) TUBULAR DOWELS

(4) 1/4-20 CAPSCREWS

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

- **RO**
  (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **GO**
  (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM.
  INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **SG**
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  INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **GSP**
  (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

NOTE: NEW SIZES

ORDERING EXAMPLES:
08/09 C-TLU-002-RO  08/09 C-TLU-004-GSP
08/09 C-TLU-006-SG  08/09 C-TLU-001-GO

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE.

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NOTE: THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

COMPONENTS FOR THE 08/09 GUIDED SUPPORT PILLAR (GSP)

GSP-B-3  GP-826  AGB-875
All C-TLU'S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved, or 2 more Leader Pins can be added for an additional cost. All ear-plate and ejector locations will stay in the same position.
08/09 C-XSU-S  STRIPPER PLATE INSERT  5.0 X 8.0 FITS 08/09 U-FRAME

ORDERING EXAMPLES:
08/09 C-XSU-S-005-1
08/09 C-XSU-S-001-1
08/09 C-XSU-S-003-1

CUSTOM ORDER EXAMPLES:
08/09 C-SLU-S  08/09 C-XSU-S-2HOLE
A  1.877  A  1.877
A2 1.125  S  0.750
S  1.000  B  2.377
B2 1.627
B  2.377


OTHER STRIPPER THICKNESSES ARE ALSO AVAILABLE

SHOWN AS SIMPLE GUIDED WITH 4 STRAIGHT LEADER PINS.

YOUR CHOICES INCLUDE:
* 2 STANDARD LOCATED LEADER PINS (OPTIONAL)
* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES (SEE C-XSU PAGE 6)
* ALSO AVAILABLE WITH A LAMINATED A-SIDE OR B-SIDE

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1-800-832-3993
crosstool.com
08/09 C-XSU-3P 3 PLATE INSERT 5.0 X 8.0 FITS 08/09 U-FRAME

Shown as simple guided with 4 straight leader pins.

Your choices include:

* 2 standard located leader pins (optional)
* All the options for return pins, guided ejectors or blank ejector plates
  (see C-XSU page 6)
* Also available with a laminated B-side

Examples only can be ordered in any combination of 1.00, 1.377, 1.877, 2.377, or 2.877.

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Ordering examples:

08/09 C-XSU-3P-005
08/09 C-XSU-3P-001
08/09 C-XSU-3P-003

Custom order examples:

08/09 C-XSU-3P
A1 1.877   08/09 C-XSU-3P
A2 1.250   A1 1.377
A3 1.377   A2 1.877
B2 1.627   A3 1.000
B 2.377
**08/10 C-XSU SOLID INSERT**

**DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM**

**ORDERING EXAMPLES:**
- 08/10 C-XSU-224-RO
- 08/10 C-XSU-227-GSP
- 08/10 C-XSU-230-SG

**CATALOG NUMBER**

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**ADDITIONAL OPTIONS:**

- **-RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **-GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **-SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **-GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

**THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE**

**COMPONENTS FOR THE 08/10 GUIDED SUPPORT PILLAR (GSP)**

**GSP-B-3**  **GP-826**  **AGB-875**

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16 Cross Tool & Manufacturing, Inc.  
1-800-832-3993  
crosstool.com
08/10 C-XSU  5.0 X 9.0 FITS 08/10 U-FRAME

B-side from parting line

(2) 2.000
Leader pins

(2) 3.938 (2)
(2) 3.875 (1)

3.750

3.750

4.063 (4)

1.219 (4)
Return pins

-.000 (2)
Guided

1.750 (4)
Ejector bolts

(2) 4.063

(1) 4.000

A

5.456
4.996

.246

9.000

B

.750

.751

.203

.375

.500

.500

2.625

8.876

Centered ejector plates

(4) 1/4-20
X 5/8 SHCS

SIMPLE GUIDED
08/10 C-SLU LAMINATED INSERT

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

ORDERING EXAMPLES:
08/10 C-SLU-284-RO 08/10 C-SLU-287-GSP

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COMPONENTS FOR THE 08/10 GUIDED SUPPORT PILLAR (GSP)

GSP-B-3
GP-826
AGB-875

NOTE: THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

-RO (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

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crosstool.com
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-RO (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

NOTE: THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ORDERING EXAMPLES:
08/10 C-TLU-002-RO 08/10 C-TLU-004-GSP
08/10 C-TLU-006-SG 08/10 C-TLU-001-GO

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE.

NOTE: NEW SIZES

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<tr>
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COMPONENTS FOR THE 08/10 GUIDED SUPPORT PILLAR(GSP)

GSP-B-3 GP-826 AGB-875
All C-TLU'S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved, or 2 more Leader Pins can be added for an additional cost. All ear-plate and ejector locations will stay in the same position.
**08/10 C-XSU-S**  
**STRIPPER PLATE INSERT**  
5.0 X 9.0 FITS 08/10 U-FRAME

Shown as simple guided with 4 straight leader pins.

Your choices include:

* 2 standard located leader pins (optional)

* All the options for return pins, guided ejectors or blank ejector plates (see C-XSU page 14)

* Also available with a laminated A-side or B-side

---

**Ordering Examples:**

<table>
<thead>
<tr>
<th>08/10 C-XSU-S-005-1</th>
<th>08/10 C-SLU-S</th>
<th>08/10 C-XSU-S-2HOLE</th>
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<tr>
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<td>B 2.377</td>
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<td>S 1.000</td>
<td>B 2.377</td>
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</tr>
<tr>
<td>B2 1.627</td>
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<tr>
<td>B 2.377</td>
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<td></td>
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A-plates and B-plates can be ordered in any combination of 1.377, 1.877, 2.377, or 2.877.

Other stripper thicknesses are also available.

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**Catalog Number**

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<thead>
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<td>2.377</td>
<td>1.000</td>
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Cross Tool & Manufacturing, Inc.  
1-800-832-3993  
crosstool.com
08/10 C-XSU-3P  3 PLATE INSERT  5.0 X 9.0 FITS 08/10 U-FRAME

SHOWN AS SIMPLE GUIDED WITH 4 STRAIGHT LEADER PINS.

YOUR CHOICES INCLUDE:

* 2 STANDARD LOCATED LEADER PINS (OPTIONAL)

ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES (SEE C-XSU PAGE 14)

* ALSO AVAILABLE WITH A LAMINATED B-SIDE

<table>
<thead>
<tr>
<th>CATALOG NUMBER EXAMPLES ONLY</th>
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<th>A2</th>
<th>A3</th>
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<td>1.377</td>
<td>1.00</td>
<td>1.00</td>
<td>2.877</td>
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</tbody>
</table>

CAN BE ORDERED IN ANY COMBINATION OF 1.00, 1.377, 1.877, 2.377, OR 2.877.

ORDERING EXAMPLES:
08/10 C-XSU-3P-005
08/10 C-XSU-3P-001
08/10 C-XSU-3P-003

CUSTOM ORDER EXAMPLES:
08/10 C-XSU-3P  08/10 C-XSU-3P
A1 1.877  A1 1.377
A2 1.250  A2 1.877
A3 1.377  A3 1.000
B2 1.627  B  2.377
B  2.377
**84/90 C-XSU SOLID INSERT**

**ADDITIONAL OPTIONS:**

- **-RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **-GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **-SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **-GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

**CATALOG NUMBER**

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**THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE**

**ORDERING EXAMPLES:**

- 84/90 C-XSU 224-RO
- 84/90 C-XSU-227-GSP
- 84/90 C-XSU-230-SG

**COMPONENTS FOR THE 84/90 GUIDED SUPPORT PILLAR (GSP)**
84/90 C-XSU  6.5 X 8.0 FITS 84/90 U-FRAME

SIMPLE GUIDED

B-SIDE FROM PARTING LINE

CENTERED EJECTOR PLATES

(4) 1/4-20 CAPSCREWS

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
**ORDERING EXAMPLES:**
84/90 C-SLU-284-RO 84/90 C-SLU-287-GSP
84/90 C-SLU-290 84/90 C-SLU-287-SG

**THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE SIMPLE GUIDED, AS DRAWN ON THE OPPOSITE PAGE.**

**CATALOG NUMBER**

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**NOTE:**

THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

**ADDITIONAL OPTIONS:**

- **-RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **-GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **-SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **-GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
84/90 C-SLU  6.5 X 8.0 FITS 84/90 U-FRAME

SIMPLE GUIDED

TUBULAR DOWELS LOCATED AT OFFSET AND DIAGONAL LOCATIONS

B-SIDE FROM PARTING LINE

(8) 3/8-16 CAPSCREWS
(4) TUBULAR DOWELS
CENTERED EJECTOR PLATES

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
84/90 C-TLU  LAMINATED T-STYLE

ORDERING EXAMPLES:

84/90 C-TLU-002-RO 84/90 C-TLU-004-GSP
84/90 C-TLU-004-SG 84/90 C-TLU-006-GO
84/90 C-TLU-003

NOTE: NEW SIZES

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THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE

COMPONENTS FOR THE 84/90 GUIDED SUPPORT PILLAR (GSP)

NOTE: THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

-RO (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
84/90 C-TLU  
6.5 X 8.0 EAR PLATE  
FITS 84/90 U-FRAME  
8.4 X 9.0 T-PLATE

All C-TLU'S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved, or 2 more Leader Pins can be added for an additional cost. All ear-plate and ejector locations will stay in the same position.
**84/90 C-XSU-S**  
**STRIPPER PLATE INSERT**  
6.5 X 8.0 FITS 84/90 U-FRAME

**ORDERING EXAMPLES:**

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<th>84/90 C-XSU-S-001-1</th>
<th>84/90 C-XSU-S-003-1</th>
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<tbody>
<tr>
<td>A2 1.125</td>
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OTHER STRIPPER THICKNESSES ARE ALSO AVAILABLE

**CUSTOM ORDER EXAMPLES:**

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<th>84/90 C-SLU-S</th>
<th>84/90 C-XSU-S-2HOLE</th>
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<tr>
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<td>S 1.000</td>
<td>B 2.377</td>
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**CATALOG NUMBER**

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SHOWN AS SIMPLE GUIDED WITH 4 STRAIGHT LEADER PINS.

YOUR CHOICES INCLUDE:

* 2 STANDARD LOCATED LEADER PINS (OPTIONAL)
* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES (SEE C-XSU PAGE 22)
* ALSO AVAILABLE WITH A LAMINATED A-SIDE OR B-SIDE

Cross Tool & Manufacturing, Inc.  
1-800-832-3993  
crosstool.com
84/90 C-XSU-3P  3 PLATE INSERT  6.5 X 8.0 FITS 84/90 U-FRAME

SHOWN AS SIMPLE GUIDED WITH 4 STRAIGHT LEADER PINS.

YOUR CHOICES INCLUDE:

* 2 STANDARD LOCATED LEADER PINS (OPTIONAL)

* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES
(SEE C-XSU PAGE 22)

* ALSO AVAILABLE WITH A LAMINATED B-SIDE

ORDERING EXAMPLES:

84/90 C-XSU-3P-005
84/90 C-XSU-3P-001
84/90 C-XSU-3P-003

CUSTOM ORDER EXAMPLES:

84/90 C-XSU-3P  84/90 C-XSU-3P
A1  1.877      A1  1.377
A2  1.250      A2  1.877
A3  1.377      A3  1.000
B2  1.627      B   2.377
B   2.377
10/12 C-XSU SOLID INSERT

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE

ORDERING EXAMPLES:
10/12 C-XSU-225-RO  10/12 C-XSU-229-GSP

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<tr>
<td>10/12 C-XSU-230</td>
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ADDITIONAL OPTIONS:

-RO  
(RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO  
(GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG  
(SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP  
(GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
ORDERING EXAMPLES:
10/12 C-SLU-286-RO  10/12 C-SLU-287-GSP

THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

-RO (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
10/12 C-SLU 7.0 X 10.9 FITS 10/12 U-FRAME
**10/12 C-TLU LAMINATED T-STYLE**

**ORDERING EXAMPLES:**
- 10/12 C-TLU-207-RO
- 10/12 C-TLU-210-SG
- 10/12 C-TLU-204-GSP
- 10/12 C-TLU-206-GO

**CATALOG NUMBER**
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**NOTE:** THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

**ADDITIONAL OPTIONS:**

- **-RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **-GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **-SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **-GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

**DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM**
10/12 C-TLU  7.0 X 10.9 EAR PLATE  FITS 10/12 U-FRAME  
9.9 X 10.9 T-PLATE

All C-TLU'S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved. All ear-plate and ejector locations will stay in the same position.

SIMPLE GUIDED
**10/12 C-XSU-S**  STRIPPER PLATE INSERT  7.0 X 10.9 FITS 10/12 U-FRAME

**ORDERING EXAMPLES:**

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<th>10/12 C-XSU-S-005-1</th>
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<td>B2 1.627</td>
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**YOUR CHOICES INCLUDE:**

- **ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES** (SEE C-XSU PAGE 30)
- **ALSO AVAILABLE WITH A LAMINATED B-SIDE**

**SHOWN WITH SIMPLE GUIDED EJECTION**

*A*-PLATES AND *B*-PLATES CAN BE ORDERED IN ANY COMBINATION OF 1.377, 1.877, 2.377, OR 2.877.

OTHER STRIPPER THICKNESSES ARE ALSO AVAILABLE.
10/12 C-XSU-3P  3 PLATE INSERT  7.0 X 10.9 FITS 10/12 U-FRAME

YOUR CHOICES INCLUDE:
* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES (SEE C-XSU PAGE 30)
* ALSO AVAILABLE WITH A LAMINATED B-SIDE

SHOWN WITH SIMPLE GUIDED EJECTION

ORDERING EXAMPLES:
10/12 C-XSU-3P-005
10/12 C-XSU-3P-001
10/12 C-XSU-3P-003

CUSTOM ORDER EXAMPLES:
10/12 C-XSU-3P  10/12 C-XSU-3P
A1 1.877        A1 1.377
A2 1.250        A2 1.877
A3 1.377        A3 1.000
B2 1.627        B  2.377
B  2.377

CATALOG NUMBER  A1  A2  A3  B
*CUSTOMIZABLE
10/12 C-XSU-3P-001 1.000 1.000 1.000 1.877
10/12 C-XSU-3P-002 1.000 1.000 1.000 2.377
10/12 C-XSU-3P-003 1.000 1.000 1.000 2.877
10/12 C-XSU-3P-004 1.377 1.000 1.000 1.877
10/12 C-XSU-3P-005 1.377 1.000 1.000 2.377
10/12 C-XSU-3P-006 1.377 1.000 1.000 2.877

*CAN BE ORDERED IN ANY COMBINATION OF 1.00, 1.377, 1.877, 2.377, OR 2.877.
10/14 C-XSU  SOLID INSERT

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE

ORDERING EXAMPLES:
10/14 C-XSU-225-RO  10/14 C-XSU-229-GSP

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ADDITIONAL OPTIONS:

-RO  (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO  (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG  (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP  (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
10/14 C-SLU LAMINATED INSERT

ORDERING EXAMPLES:
10/14 C-SLU-286-RO  10/14 C-SLU-287-GSP

NOTE: NEW SIZES

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NOTE: THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

- **RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

- **GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PillARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.
10/14 C-SLU 7.0 X 12.9 FITS 10/14 U-FRAME

Tubular dowels are located at offset side and diagonal bolt locations.

B-side from parting line

Simple Guided

3/8-16 bolts 3.000

Centered ejector plates

3/8-16 shcs .500 tubular dowels

(4) 5/16-18 X 5/8 SHCS

.500 .078 .497 .500 .500

.860 .1875 .7506 .490

.313 .497 .500 .625

3.000 5.563 4.000 (2) 5.750 (2)

(2) 8.750 (2) 5.675 (2) 5.750 (1) 6.000

7.716 6.996 .876 .496
THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

- **RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

- **GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

- **SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

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ORDERING EXAMPLES:

- **10/14 C-TLU 207-RO**
- **10/14 C-TLU-204-GSP**
- **10/14 C-TLU-206-GO**
- **10/14 C-TLU-210-SG**
- **10/14 C-TLU-206-GO**

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE.

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**NOTE:** THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

COMPONENTS FOR THE 10/14 GUIDED SUPPORT PILLAR (GSP)

- **GSP-B-4**
- **GP-1.125-35**
- **GB-1.125**

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
All C-TLU'S can be modified in length and width to accommodate cams or waterlines. Leader pin locations can be moved. All ear-plate and ejector locations will stay in the same position.
10/14 C-XSU-S  STRIPPER PLATE INSERT  7.0 X 12.9 FITS 10/14 U-FRAME

YOUR CHOICES INCLUDE:

* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES. (SEE C-XSU PAGE 38)

* ALSO AVAILABLE AS A LAMINATED B-SIDE

SHOWN WITH SIMPLE GUIDED EJECTION

10/14 C-XSU-S-001  1.877  1.377  1.000
10/14 C-XSU-S-002  1.877  1.877  1.000
10/14 C-XSU-S-003  1.877  2.377  1.000
10/14 C-XSU-S-004  2.377  1.877  1.000
10/14 C-XSU-S-005  2.377  2.377  1.000
10/14 C-XSU-S-006  2.877  2.377  1.000

ORDERING EXAMPLES:

10/14 C-XSU-S-005-1
10/14 C-XSU-S-001-1
10/14 C-XSU-S-003-1

CUSTOM ORDER EXAMPLES:

10/14 C-SLU-S  10/14 C-XSU-S-2HOLE
A  1.877  A  1.877
A2 1.125 S  0.750
S  1.000 B  2.377
B2 1.627
B  2.377


OTHER STRIPPER THICKNESSES ARE ALSO AVAILABLE

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com

46
**10/14 C-XSU-3P** 3 PLATE INSERT

7.0 X 12.9 FITS 10/14 U-FRAME

**YOUR CHOICES INCLUDE:**

* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES. (SEE C-XSU PAGE 38)

* ALSO AVAILABLE AS A LAMINATED B-SIDE

**SHOWN WITH SIMPLE GUIDED EJECTION**

**ORDERING EXAMPLES:**

10/14 C-XSU-3P-005
10/14 C-XSU-3P-001
10/14 C-XSU-3P-003

**CUSTOM ORDER EXAMPLES:**

10/14 C-XSU-3P
10/14 C-XSU-3P
A1 1.877
A2 1.377
A3 1.000
B2 1.627
B 2.377

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*CAN BE ORDERED IN ANY COMBINATION OF 1.00, 1.377, 1.877, 2.377, OR 2.877.*
11/11 C-XSU SOLID INSERT

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

THE (GUIDED SUPPORT PILLAR) OPTION USES THE SAME LOCATIONS AS THE (SIMPLE GUIDED), AS DRAWN ON THE OPPOSITE PAGE

ORDERING EXAMPLES:
11/11 C-XSU-225-RO 11/11 C-XSU-229-GSP

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COMPONENTS FOR THE 11/11 GUIDED SUPPORT PILLAR (GSP)

GSP-B-4  GP-1.125-35  GB-1.125

ADDITIONAL OPTIONS:

-RO  (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO  (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG  (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP  (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
11/11 C-XSU  8.0 X 10.0 FITS 11/11 U-FRAME

B-side from parting line

Leader pins
3.311(4)

2.250(4) Return pins

-.000 (2) Guided

Ejector bolts 3.000(4)

SIMPLE GUIDED

(4) 5/16-18 X 5/8 SHCS

Centered ejector plates
11/11 C-SLU LAMINATED INSERT

ORDERING EXAMPLES:
11/11 C-SLU-286-RO 11/11 C-SLU-287-GSP

NOTE: NEW SIZES

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NOTE: THE C-SLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:

-RO (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.

-GO (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.

-SG (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.

-GSP (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PillARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENTION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
11/11 C-SLU  8.0 X 10.0 FITS 11/11 U-FRAME

**SIMPLE GUIDED**

- Tubular dowels are located at offset side and diagonal bolt locations.
- Leader pins 3.311(4)
- Return pins 2.250(4)
- Guided -0.000(2)
- Ejector bolts 3.000(4)
- Ear plate bolts 3.500(4)

**Dimensions**

- A: 10.000
- A2: 8.716
- B: 7.996
- B2: 8.75

**Notations**

- (4) 5/16-18 X 5/8 SHCS
- 500 tubular dowels
- 3/8-16 shcs
THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

ADDITIONAL OPTIONS:
- **RO** (RETURN ONLY) INCLUDES ALL RETURN PIN MACHINING, WITH CUT TO SIZE RETURN PINS AND BOLTED EJECTOR PLATES.
- **GO** (GUIDED ONLY) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES BOLTED EJECTOR PLATES, BUT NO RETURN PINS.
- **SG** (SIMPLE GUIDED) USES SHOULDER BOLTS AND ALUMINUM BRONZE BUSHINGS. A GOOD QUALITY GUIDED SYSTEM, THAT INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN PIN ONLY.
- **GSP** (GUIDED SUPPORT PILLAR) USES HIGH PRECISION SUPPORT PILLARS AND ALUMINUM BRONZE BUSHINGS TO PROVIDE A SUPERIOR QUALITY GUIDED EJECTOR SYSTEM. INCORPORATES AN EJECTOR PLATE RETENSION SYSTEM. INCLUDES ALL THE FEATURES OF THE RETURN ONLY.

ORDERING EXAMPLES:
- 11/11 C-TLU 207-RO 11/11 C-TLU-204-GSP
- 11/11 C-TLU-210-SG 11/11 C-TLU-206-GO

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NOTE: THE C-TLU SERIES INCLUDES BOLTED EAR PLATES WITH TUBULAR ALIGNMENT DOWELS.

FREE LAMINATED T-STYLE DRAWINGS AVAILABLE ONLINE IN .STEP OR .XT FORMATS AT CROSSTOOL.COM

COMPONENTS FOR THE 11/11 GUIDED SUPPORT PILLAR (GSP)

GSP-B-4  | GP-1.125-35  | GB-1.125
All C-TLU’S can be modified in length and width to accommodate cams or waterlines. Leader pin locations can be moved. All ear-plate and ejector locations will stay in the same position.
11/11 C-XSU-S  STRIPPER PLATE INSERT  8.0 X 10.0 FITS 11/11 U-FRAME

YOUR CHOICES INCLUDE:

* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES. (SEE C-XSU PAGE 46)

* ALSO AVAILABLE AS A LAMINATED B-SIDE

ORDERING EXAMPLES:

11/11 C-XSU-S-005-1
11/11 C-XSU-S-001-1
11/11 C-XSU-S-003-1

CUSTOM ORDER EXAMPLES:

11/11 C-SLU-S  11/11 C-XSU-S-2HOLE

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OTHER STRIPPER THICKNESSES ARE ALSO AVAILABLE

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
YOUR CHOICES INCLUDE:

* ALL THE OPTIONS FOR RETURN PINS, GUIDED EJECTORS OR BLANK EJECTOR PLATES. (SEE C-XSU PAGE 46)

* ALSO AVAILABLE AS A LAMINATED B-SIDE

ORDERING EXAMPLES:
11/11 C-XSU-3P-005
11/11 C-XSU-3P-001
11/11 C-XSU-3P-003

CUSTOM ORDER EXAMPLES:
11/11 C-XSU-3P 11/11 C-XSU-3P
A1 1.877 A1 1.377
A2 1.250 A2 1.877
A3 1.377 A3 1.000
B2 1.627 B 2.377
B 2.377

*CAN BE ORDERED IN ANY COMBINATION OF 1.00, 1.377, 1.877, 2.377, OR 2.877.
C-08/09 POCKETS

REQUIRED INFORMATION

Single Pocket:
- Width of pocket inside the 4.996 width on C-XSU and C-SLU, or 7.85 inch T-plate dimension.
- Length of pocket inside 8 inch ear-plate dimension
- Depth of pocket
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.375 standard from 1 to 2 inch deep)
- Center of pocket from middle of ear-plate towards or away from offset leader pin.

Multiple Pocket:
- Width of pockets
- Length of pockets
- Depth of Pockets
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.375 standard from 1 to 2 inch deep)
- Location of pocket centers from middle of ear-plate towards or away from offset leader pin.
C-84/90 POCKETS

REQUIRED INFORMATION

Single Pocket:
- Width of pocket inside the 6.956 width on C-XSU and C-SLU, or 8.400 inch T-plate dimension.
- Length of pocket inside 8 inch ear-plate dimension
- Depth of pocket
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.375 standard from 1 to 2 inch deep)
- Center of pocket from middle of ear-plate towards or away from offset leader pin.

Multiple Pocket:
- Width of pockets
- Length of pockets
- Depth of Pockets
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.375 standard from 1 to 2 inch deep)
- Location of pocket centers from middle of ear-plate towards or away from offset leader pin.

84/90 CTLU laminated pockets maximum through size

84/90 CXSU solid pockets maximum size

84/90 CSLU laminated pockets maximum size

84/90 CXSU solid pockets maximum size

84/90 CSLU laminated pockets maximum size
C-10/12 POCKETS

REQUIRED INFORMATION

Single Pocket:
- Width of pocket inside the 6.996 dimension on C-XSU and C-SLU, or 9.875 inch T-plate dimension.
- Length of pocket inside 8 inch ear-plate dimension
- Depth of pocket
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.374 standard from 1 to 2 inch deep)
- Center of pocket from middle of ear-plate towards or away from offset leader pin.

Multiple Pocket:
- Width of pockets
- Length of pockets
- Depth of Pockets
- Corner radius (.3115 standard to 1 inch deep)
- Corner radius (.375 standard from 1 to 2 inch deep)
- Location of pocket centers from middle of ear-plate towards or away from offset leader pin.

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
C-08/09 WATERLINES
Shown in a (modified) C-TLU

Cross Tool incorporates waterlines into the manufacturing process saving you time and money. Your choices include gun-drilled holes for waterlines, or cartridge heating elements. With a simple layout drawing or sketch we can provide a competitive quote. Threaded holes can be added for a nominal extra fee.

All C-TLU’S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved. 2 more Leader Pins and Bushings can be added for an additional cost. All ear-plate and ejector locations will stay the same. All guided ejection and return pins options are available. (see Page 6)
C-84/90 WATERLINES
Shown in a (modified) C-TLU

Cross Tool incorporates waterlines into the manufacturing process saving you time and money. Your choices include gun-drilled holes for waterlines, or cartridge heating elements. With a simple layout drawing or sketch we can provide a competitive quote. Threaded holes can be added for a nominal extra fee.
C-10/12 WATERLINES
Shown in a standard C-TLU

Cross Tool incorporates waterlines into the manufacturing process saving you time and money. Your choices include gun-drilled holes for waterlines, or cartridge heating elements. With a simple layout drawing or sketch we can provide a competitive quote. Threaded holes can be added for a nominal extra fee.

All C-TLU’S can be modified in length and width to accommodate cams or waterlines. Leader Pin locations can be moved. 2 more Leader Pins and Bushings can be added for an additional cost. All ear-plate and ejector locations will stay the same. All guided ejection and return pins options are available. (see Page 22)
**INTERCHANGEABLE MOLDING INSERTS**

“**A**” & “**B**” dimensions are supplied .000” to .001” oversize at parting line unless otherwise specified.

<table>
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<tr>
<th>STANDARD SOLID INSERT</th>
<th>STANDARD LAMINATED INSERT</th>
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<tr>
<td>**C-**XSU</td>
<td>**C-**SLU</td>
</tr>
<tr>
<td>Standard Solid Inserts are designed to fit into “U” Series Mold Base Frames. A SSU is made up of a two plate design, which consists of a solid “A” plate and a solid “B” plate.</td>
<td>Standard Laminated Inserts are designed to fit into “U” Series Mold Base Frames. A SLU is made up of a four plate design. The SLU Molding Insert is made up of both “A” and “B” ear plates that clamp into the U-Frame, and “A2” and “B2” plates that can be separated allowing for Core Pin and through pocket machining.</td>
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**T-STYLE LAMINATED INSERT**

<table>
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<tr>
<th>C-<strong>TLU</strong></th>
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<tr>
<td>T-Style Laminated Inserts are designed to fit into “U” Series Mold Base Frames. A TLU is made up of a four plate design. The TLU Molding Insert is made up of both “A” and “B” ear plates that clamp into the U-Frame, and “A2” and “B2” plates that can be separated allowing for Core Pin and through pocket machining. The T-Style Insert overhangs the U-Frame, this allows additional Mold Base area for maximum molding capacity. TLU’s are shipped with loose ear plates.</td>
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**STEEL GRADES AVAILABLE:**

- Standard materials for inserts are P-20 Prehard, Holder Block (#2). Other grades available: H-13 Standard or Premium, 420 Stainless Prehard, S-7 and ALUMOLD®\(^1\) (comparable to QC7\(^2\))
- Standard material for Frames is Holder Block (#2).
- OTHER MATERIALS FOR FRAMES/INSERTS ARE AVAILABLE UPON REQUEST.

(Note: Shoulder Leader Pins & Bushings are retained with Snap Rings.)

Yes, We still build all of our standard Products. U-Frames and inserts through 14/16 size, and H-Frame inserts. We do not build H-Frames.

---

\(^1\)ALUMOLD® is a registered trademark of Alcan/Pechiney.
\(^2\)QC7® is a registered trademark of ALCOA.
The U-Frame is a “U” shaped Mold Base Frame designed to hold a SSU, SLU, or TLU Molding Insert of the same series. U-Frames are designed to run millions of cycles and allow for fast changeovers. All of our larger U-Frames include SEPU Slots in standard pricing. Our 84/90 Series includes mounting holes and clamping plates which overhang ½” per side.

U-FRAME INDEX

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08/09 Mold Base U-Frame ............................................................................................................................................. 60
08/10 Mold Base U-Frame ............................................................................................................................................. 61
84/90 Mold Base U-Frame ........................................................................................................................................... 62
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10/14 Mold Base U-Frame ........................................................................................................................................... 64
11/11 Mold Base U-Frame ........................................................................................................................................... 65
08/09 U-Frame

ORDERING INFORMATION

FRAMES

- Please specify Quantity & Catalog #

- Specify Locating Ring Diameter & Sprue Bushing R & O sizes

- Standard Material for Frames is Holder Block (#2)

1. Sprue Bushing information:
   O=Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
   R=Spherical Radius of Sprue Bushing: 1/2" or 3/4"
2. Optional Locating Rings are available (Industry Standard)
3. 2" or 2½" clearance through hole is available (No Sprue Bushing)
4. Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
5. 3/8 X 5 Degree Lead-in
### ORDERING INFORMATION

**FRAMES**

- Please specify Quantity & Catalog #
- Specify Locating Ring Diameter & Sprue Bushing R & O sizes
- Standard Material for Frames is Holder Block (#2)

---

**Sprue Bushing information:**
- O = Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
- R = Spherical Radius of Sprue Bushing: 1/2" or 3/4"
- Optional Locating Rings are available (Industry Standard)

**Tapered Slot**
- 2" or 2½" clearance through hole is available (No Sprue Bushing)
- Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
- 3/8 X 5 Degree Lead-in

---

**Catalog #**

08/10 UF 321

---

**UC 3816**

---

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
### 84/90 U-Frame

Note: This size includes Mounting Holes & Extended Clamp Plates in standard pricing

#### ORDERING INFORMATION

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<tr>
<td>• Specify Locating Ring Diameter &amp; Sprue Bushing R &amp; O sizes</td>
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<td>• Standard Material for Frames is Holder Block (#2)</td>
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1. Sprue Bushing information:
   - O = Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
   - R = Spherical Radius of Sprue Bushing: 1/2" or 3/4"
2. Optional Locating Rings are available (Industry Standard)
3. 2" or 2½" clearance through hole is available (No Sprue Bushing)
4. Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
5. 3/8 X 5 Degree Lead-in
10/12 U-Frame

Note: This size includes SEPU Slots in standard pricing

**ORDERING INFORMATION**

- Please specify Quantity & Catalog #
- Specify Locating Ring Diameter & Sprue Bushing R & O sizes
- Standard Material for Frames is Holder Block (#2)

---

Sprue Bushing information:
O = Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
R = Spherical Radius of Sprue Bushing: 1/2" or 3/4"
Optional Locating Rings are available (Industry Standard)

2" or 2 1/4" clearance through hole is available (No Sprue Bushing)
Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
3/8 X 5 Degree Lead-in
10/14 U-Frame

Note: This size includes SEPU Slots in standard pricing

ORDERING INFORMATION

- Please specify Quantity & Catalog #
- Specify Locating Ring Diameter & Sprue Bushing R & O sizes
- Standard Material for Frames is Holder Block (#2)

Sprue Bushing information:

O=Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
R=Spherical Radius of Sprue Bushing: 1/2" or 3/4"

Optional Locating Rings are available (Industry Standard)

2” or 2½” clearance through hole is available (No Sprue Bushing)
Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
3/8 X 5 Degree Lead-in

Cross Tool & Manufacturing, Inc.
1-800-832-3993
crosstool.com
**11/11 U-Frame**

Note: This size includes SEPU Slots in standard pricing

---

1. Sprue Bushing information:
   - **O**=Small Dia. of Sprue Bushing Orifice: 5/32", 7/32", 9/32"
   - **R**=Spherical Radius of Sprue Bushing: 1/2" or 3/4"
2. Optional Locating Rings are available (Industry Standard)
3. 2" or 2½" clearance through hole is available (No Sprue Bushing)
4. Tapered Slot at .25 Degree to accommodate Sleeve Ejector Plate (SEPU)
5. 3/8 X 5 Degree Lead-in

---

### ORDERING INFORMATION

**FRAMES**

- Please specify Quantity & Catalog #
- Specify Locating Ring Diameter & Sprue Bushing R & O sizes
- Standard Material for Frames is Holder Block (#2)
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<tr>
<td>Frame Components</td>
<td>67</td>
</tr>
<tr>
<td>C-SERIES Leader Pins and Bushings</td>
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</tr>
<tr>
<td>C-08/09,08/10 and C-84/90 Components</td>
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</tr>
<tr>
<td>C-10/12, 10/14 and 11/11 Components</td>
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<tr>
<td>C-SERIES: Ear Plate, Ejector Plates, and Sleeve Ejector Plates</td>
<td>72</td>
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FRAME COMPONENTS

SPRUCE BUSHING ORDERING INFORMATION

Please specify R & O Sizes:

R = Spherical Radius of Sprue Bushing:
  1/2” or 3/4”

O = Small Diameter of Sprue Bushing Orifice:
  5/32”, 7/32”, 9/32”

Locating Rings

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Frame Holding Clamps

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*Other size Locating Rings available upon request.
C-SERIES LEADER PINS AND BUSHINGS

08/09 and 08/10 C-SLU Pins and Bushings

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84/90 C-SLU Pins and Bushings

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10/12, 10/14 and 11/11 C-SLU Pins and Bushings

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**Snap Rings**

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**Straight Leader Pin**

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08/09, 08/10 & 84/90 C-XSU And C-TLU Pins and Bushings

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10/12, 10/14 and 11/11 C-XSU And C-TLU Pins and Bushings

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C-08/09, C-08/10 & C-84/90 COMPONENTS

Components for the 08/09, 08/10 & 84/90 Guide Support Pillar (GSP)

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<th>GP-826</th>
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<tr>
<td>5/16-18 X 3 CAPSCREW</td>
<td>GUIDED SUPPORT PILLAR</td>
<td>BRONZE BUSHING</td>
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RETURN PIN

EJ-38-L6
EJ-38-L10
Cut to length available

TD-500 Tubular dowel

EJB-1/4-20 X 5/8
Ejector bolts:
All 08/09, 08/10 and 84/90 C-SERIES Ejector plates

EPB-3/8-16 X 1 1/8
Ear plate bolts:
08/09 & 08/10 C-SLU
08/09 & 08/10 C-TLU
84/90 C-TLU

EPB-3/8-16 X 1
Ear plate bolts:
84/90 C-SLU

EG-38-2.5
Shoulder bolt

SG-SB-2.5
Bronze bushing
C-10/12, C-10/12 and C-11/11 COMPONENTS

Components for the 10/12, 10/14 & 11/11 Guided support Pillar (GSP)

**GSP-B-4**
5/16-16 X 3 CAPSCREW

**GP-1.125-35**
GUIDED SUPPORT PILLAR

**AGB-1.125**
BRONZE BUSHING

---

**Simple Guided (SG)**
For 10/12, 10/14 and 11/11 Inserts

**SG-SB-3.25**
Shoulder bolt

**SG-B**
Bronze bushing

---

**RETURN PIN**

**EJ-50-L6**
**EJ-50-L10**
Cut to length available

---

**TD-500** Tubular dowel

---

**EPB-3/8-16 X 1 3/8**
**EJB-5/16-18 X 5/8**

Ear plate bolts:
All 10/12, 10/14 & 11/11 C-SLU and C-TLU Ear plates

Ejector bolts:
All 10/12, 10/14 & 11/11 C-SERIES Ejector plates
Ear Plates

Note: Ear Plates are sold in a set of (2) plates. Steel grade is Holder Block (#2).

Sleeve Ejector Plates

Standard Ejector Plates

Ear Plates for T-Style Molding Inserts

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<td>7.716</td>
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Standard Ejector Plate Sets for U-Frame

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Sleeve Ejector Plate Assemblies

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<tr>
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<td>6.62</td>
<td>.25</td>
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ORDERING INFORMATION

Ear Plates

- Please specify Quantity & Catalog #. (Catalog # is for a set of (2) plates)
- Material grade is Holder Block (#2)
- First four digits of catalog # must match those of Molding Insert

Ejector Plates: Standard or Sleeve

- Please specify Quantity & Catalog #. (Catalog # is for a set of (2) plates)
- Material grade is 1018 Steel
- First four digits of catalog # must match those of Molding Insert
CROSS TOOL & MFG., INC.

1000 E. Butler Ave., Suite 102
Flagstaff, AZ 86001
Toll Free: 1-800-832-3993
Phone: (928) 779-4218
Fax: (928) 556-3048

(Note: Failure to complete forms **IN FULL AND LEGIBLY** WILL RESULT IN A DELAY IN PROCESSING)

### BUSINESS INFORMATION

<table>
<thead>
<tr>
<th>Business Name:</th>
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<tr>
<td>D.B.A.:</td>
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</tr>
<tr>
<td>Address:</td>
<td>Shipping Address:</td>
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<tr>
<td>City:</td>
<td>City:</td>
</tr>
<tr>
<td>State:</td>
<td>Zip:</td>
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Initial Amount of Credit Requested:  
- $500
- $1000
- $2000
- Other _________________________

(please include a completed resale exemption certificate with credit application if applicable.)

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<th>Fed. Tax I.D.:</th>
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<td>Principal (Signature, Date):</td>
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Accounts Payable Contact: ________________________________  
- Partnership  
- LLC

### BANK REFERENCES

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| Bank:      | Checking  
|           | Loan  
| Street:    | Other __________ |

| City/State/Zip: | Phone: |
|                | Fax: |

### TRADE REFERENCES

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<th>Address:</th>
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</tbody>
</table>

Terms: 2% 10/Net 30. Applicant agrees to adhere to the “Terms and Conditions of Sale” and to pay any collection costs incurred to collect the amount balance, including reasonable attorney’s fees.

The undersigned warrants that the information submitted is true and correct. Cross Tool & Manufacturing, Inc. is authorized to review the credit references listed.

Authorized Signature, Title, Date
SALES POLICY:

SALES TAX:
Cross Tool and Manufacturing, Incorporated is required to charge applicable State and local sales tax on every item for which a sales tax exemption certificate has not been provided. When ordering, please indicate clearly which items are or are not taxable.

RETURNED GOODS:
Our authorization to return materials is required. To expedite the issuance of credit, please furnish our invoice number and date of invoice. Materials returned due to our error will be promptly credited in full provided they are returned within 30 days and are received in original saleable condition. All other returns are subject to charges for inspection or restocking. We cannot accept materials which have been in any way damaged or altered.

SPECIAL GOODS:
Orders for nonstandard material/design, special order, or altered at your request cannot be cancelled or returned unless production has not yet begun. If cancelled, customer will be charged for any work done before production is stopped.

CANCELLATIONS:
Our permission in writing is required to cancel orders placed with us and are subject to a cancellation charge. Such permission can only be granted on the merit of each case.

FREIGHT POLICY:

F.O.B. POINT:
All orders and quotations are F.O.B. our warehouse unless otherwise noted.

SHIPPING:
In the absence of explicit customer shipping instructions, we shall determine and select the most satisfactory routing. All merchandise shipped, except Parcel Post shipments, becomes the property of the purchaser upon delivery in good order. Claims for loss, damage, or delay must be made in writing to the carrier and notation made on the receipt at the time of delivery.

WARRANTY POLICY:

LIMITATION OF REMEDY:
Any liability for consequential and incidental damages is expressly disclaimed. The liability of Cross Tool & Manufacturing, Inc. in all events is limited to, and shall not exceed, the purchase price paid.

DELAYS BEYOND SELLER’S CONTROL:
Seller shall not be responsible for delays in performance caused by delays in manufacturing, transportation or due to strikes, fires, floods, storms, war, insurrections, riots, any governmental regulation, order, act or instruction, or any circumstances beyond the Seller’s reasonable control. Buyer’s acceptance of goods and/or services shall constitute a waiver of any claims for damages due to delay. Under no circumstances shall the Seller be liable for any loss or use by Buyer or for any indirect or consequential damages arising from such delays.

ERRORS:
Clerical and Statistical errors are subject to correction.
### CONDITIONS:

**GENERAL:**
Prices & Discounts are subject to change without notice.

**TERMS:**
2% discount if paid within 10 days of invoice date - NET 30 days. Terms valid on approved credit only.

### SHIPPING INFORMATION:

USPS is used whenever possible. Inserts are split when needed and shipped best way (USPS, FedEx, UPS, Freight). Ground, 3rd Day, 2nd Day, and Next Day shipping options are available. Please specify when placing your order if you have a preference.

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