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### Ball Plungers

- **Material:**
  - Steel Body: 12L14 Steel
  - Stainless Steel Body: 303 Stainless Steel
  - Ball: 440 Stainless Steel or Nylon
- **Smallest and lightest spring loaded device**
- **Side-load tolerant**
- **Controlled end forces**
- **Screwdriver installation**
- **Many sizes conform to TCMAI standards**
- **Ball Plungers**
  - Steel Body: 303 Stainless Steel
  - Steel Body: 12L14 Steel
  - Stainless Nylon Body: Stainless, Nylon

<table>
<thead>
<tr>
<th>STEEL BODY</th>
<th>STAINLESS STEEL BODY</th>
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</thead>
<tbody>
<tr>
<td>Part No.</td>
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<tr>
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<tr>
<td>Weight</td>
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Special sizes quoted upon request – see quotation form on page 115.

For information concerning installation, see page 125.

### Metric

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<td>Thread Dia</td>
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<td>Weight</td>
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### NYLON THREAD LOCKING ELEMENT IS STANDARD ON ALL SIZES

To order ball plungers without a locking element, simply add an “X” to the end of the part number (ex. 52821X).

Pricing is the same with or without locking element.
Ball Plungers – Hexagon Socket

- Material:
  - Steel Body: ball in steel, spring steel D
- Surface finish:
  - Steel: black oxide finish
  - Stainless Steel Body: 300 series, ball 400 series, spring 300series

### Standard End Pressure – Metric

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### Heavy End Pressure – Metric

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### Available without locking element only

NEW

### Standard End Pressure – Inch

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### Heavy End Pressure – Inch

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### Standard End Pressure – Metric

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### Heavy End Pressure – Metric

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937-836-0961 • 800-543-4071 • Fax: 937-832-1274 • www.te-co.com • E-Mail: info@te-co.com
PRESS SPRING LOADED DEVICES

Press Fit Ball Plungers

- **Material:**
  - Steel Body: 12L14 Steel
  - Stainless Steel Body: 303 Stainless Steel
  - Ball: 440 Stainless Steel
- Black Oxide Finish – Steel Only
- Ideal for installation in softer materials, such as aluminum, wood or plastic
- Sturdy shoulder provides a fixed seating position and positively resists detent force (installation hole can be counterbored to recess the shoulder)
- Use when a threaded hole would be impractical

<table>
<thead>
<tr>
<th>STEEL BODY</th>
<th>STAINLESS BODY</th>
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Press Fit Ball Plungers – No Flange

- For sensitive and light duty applications
- Black thermoplastic or stainless steel body
- Ball available in plastic, steel and stainless steel

Stainless Steel Body & Ball – Metric

<table>
<thead>
<tr>
<th>Stainless Steel Part No.</th>
<th>End Force (Newtons) Initial</th>
<th>Final</th>
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Plastic Body, Stainless Steel Ball – Metric

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Stainless Steel Body, Plastic Ball – Metric

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Plastic Body & Ball – Metric

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Press Fit Ball Plungers

- For sensitive and light duty applications
- Black thermoplastic or stainless steel body
- Ball available in plastic, steel and stainless steel

Small and lightweight!
### Standard Spring Plungers

- **Steel Body Plungers:**
  - 12L14 Steel Body, Black
  - Light End Force: Zinc Plated
  - Heavy End Force: Black Oxide Finish

- **Stainless Steel Body Plungers:**
  - 303 Stainless Steel Body
  - Excellent wear resistance

### NYLON THREAD LOCKING ELEMENT IS STANDARD ON ALL SIZES

To order ball plungers without a locking element, simply add an “X” to the end of the part number (ex. 52821X). Pricing is the same with or without locking element.

### General Information

- Metric sizes available, see page 97
- Many sizes conform to TCMAI standards
- Typical uses: positioning, locating, ejecting, detents, contacts, lifters, insulators, and latches
- Easy installation

---

### Light End Force: White Nose

<table>
<thead>
<tr>
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<th>End Force (lbs) Final</th>
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<th>C</th>
<th>+.000</th>
<th>-.001</th>
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### Delrin® Nose

- **Light End Force:** White Delrin
- **Heavy End Force:** Black Delrin

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### Phenolic Nose

- **Light End Force:** Black Phenolic
- **Heavy End Force:** Black Phenolic

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### Special Sizes Quoted Upon Request

For information concerning installation, see page 125.
SPRING LOADED DEVICES

Spring Plungers – Pin Style Slotted

- Material:
  - Steel Body: ball in steel, spring steel D
- Surface finish:
  - Steel: black oxide finish
  - Stainless Steel Body: 300 series, ball 400 series, spring 300series

Available without locking element only

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Spring Plungers – Hexagon Socket

Steel Body

- Material: Steel Body quality class 5.8, pressure pin in steel or plastic, spring in spring steel D
- Finish: Steel with black oxide finish, pressure pin in steel, hardened

Available without locking element only

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New

Heavy End Pressure – Metric

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SPRING LOADED DEVICES

Spring Plungers – Hexagon Socket Stainless Steel Body

- Material: Body 1.4305, pressure pin 1.4034 or plastic, spring 1.4310
- Finish: Stainless steel body with natural finish, pressure pin in stainless steel, hardened

**NEW**

Available without locking element only

**Standard End Pressure – Metric**

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**Heavy End Pressure – Metric**

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**Metric Spring Plungers**

- Material:
  - Steel Body: 12L14 Steel, Black Oxide Finish
  - Stainless Steel Body: 303 Stainless Steel
  - Steel Nose: 12L14 Steel, Black Oxide Finish
  - Stainless Steel Nose: 303 Stainless Steel
- Many sizes conform to TCMAI standards
- All dimensions in metric format

**NYLON THREAD LOCKING ELEMENT IS STANDARD ON ALL SIZES**

To order ball plungers without a locking element, simply add an “X” to the end of the part number (ex. 52621X). Pricing is the same with or without locking element.
Press Fit Spring Plungers

- Material:
  - Steel Body: 12L14 Steel
  - Stainless Steel Body: 303 Stainless Steel
  - Steel Plunger: 12L14 Steel
  - Stainless Steel Plunger: 303 Stainless Steel
- Ideal for installation in softer materials such as aluminum, wood, or plastic
- Withstands high temperatures
- No thread adjustment
- Longer travel

<table>
<thead>
<tr>
<th>Steel Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs)*</th>
<th>+.002 -.000</th>
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Spring and Ball Plunger Wrenches

Designed to eliminate excessive spring compression during installation and removal of spring and ball plungers.

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<th>Weight (lbs/100pcs)</th>
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<td>3/8-16</td>
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<td>53007</td>
<td>1/2-13</td>
<td>M12</td>
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Stainless Steel Ball Buttons

The ideal mating detent for ball plungers or other similar applications. Hardened and ground 440C stainless steel.

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<thead>
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<th>C</th>
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<td>.0780</td>
<td>1/8</td>
<td>.1175</td>
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<td>.0938</td>
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<td>.1614</td>
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<td>.1250</td>
<td>1/4</td>
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<td>.1560</td>
<td>5/16</td>
<td>.2559</td>
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<tr>
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<td>.3750</td>
<td>5/8</td>
<td>.5472</td>
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</table>
SPRING LOADED DEVICES

Posi Hex Plungers

- Material:
  - Steel Body: 12L14 Steel
  - Stainless Steel Body: 303 Stainless Steel
  - Steel Plunger: 12L14 Steel, Case Hardened
  - Stainless Steel Plunger: 303 Stainless Steel

- Heavy End Force: Black Oxide Finish
- Light End Force: Zinc Plated Nose
- Easy installation and removal
- Withstands high torque
- One-piece body – no set screw in back

ENGLISH

Heavy End Force

<table>
<thead>
<tr>
<th>STEEL BODY</th>
<th>STAINLESS BODY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Nose Part No.</td>
<td>Blue Delrin Nose Part No.</td>
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Light End Force

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<tbody>
<tr>
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<tr>
<td>57183</td>
<td>–</td>
</tr>
<tr>
<td>57184**</td>
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* INCH SIZES
  Steel Nose: +.000, -.001
  Delrin Nose: +.000, -.002

* METRIC SIZES
  Steel Nose: +.000, -.025
  Delrin Nose: +.000, -.050

** Not available in one-piece design
SPRING LOADED DEVICES

Flat Hex Nose Plungers
- Material: Steel, Black Oxide Finish
- Ideal for tough, high-speed, long-life product applications
- Flat, hexagonal nose design
- Easy access and adjustment
- Long spring life

Long Travel Hex Nose Plungers
- Material: Steel
- Ideal for high-speed, long-life applications
- Hexagonal nose design
- Easy insertion, adjustment or removal

Body & Nose: Black Oxide Finish

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial</th>
<th>End Force (lbs) Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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Body: Black Oxide Finish/Nose: Zinc Plated

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<th>B</th>
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Hex Nose Plungers
- Material: Steel, Black Oxide Finish
- Case hardened plunger
- Heavy End Force: Black Oxide Finish
- Light End Force: Zinc Plated Nose
- Hexagonal nose design allows for easy installation/removal with socket wrench

Heavy End Force

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial</th>
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</table>
Short Spring Plungers – Light and Heavy End Forces

Carbon & Stainless Steel Nose

- Excellent wear resistance

STEEL PLUNGERS:
- Body: 12L14 Steel, Black Oxide Finish
- Nose:
  - Light End Force: Case Hardened 12L14 Steel, Zinc Plated
  - Heavy End Force: Case Hardened 12L14 Steel, Black Oxide Finish

STAINLESS STEEL PLUNGERS:
- 303 Stainless Steel Body and Nose

### STEEL PLUNGERS:
- Body: 12L14 Steel, Clear Zinc Finish
- Nose:
  - Light End Force: White Delrin
  - Heavy End Force: Black Delrin

### STAINLESS STEEL PLUNGERS:
- Body: 303 Stainless Steel
- Nose:
  - Light End Force: White Delrin
  - Heavy End Force: Black Delrin

### Delrin® Nose

- Insulating Delrin Plungers
- Ideal for aluminum, brass, or any soft, easily marred mating material

### Special sizes quoted upon request – see quotation form on page 115. For information concerning installation, see page 125.
Shortie Spring Plungers – Long Travel

- Light and Heavy End Forces
  - Shortie spring plungers offer a longer nose than our standard short spring plungers
  - All Long Travel Shortie Spring Plungers have a nylon patch

STEEL NOSE/STEEL BODY SHORTIES:
- Steel nose offers excellent wear resistance
- Body: Low Carbon Steel, Black Oxide Finish
- Nose:
  - Light End Force: Zinc Plated Clear Chromate
  - Heavy End Force: Black Oxide Finish

DELRIN® NOSE/STEEL BODY SHORTIES:
- Delrin nose is ideal for aluminum, brass, or any soft, easily marred material
- Body: Low Carbon Steel, Black Oxide Finish
- Nose:
  - Light End Force: White Delrin
  - Heavy End Force: Blue Delrin

### English

<table>
<thead>
<tr>
<th>LIGHT END FORCE</th>
<th>HEAVY END FORCE</th>
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<tbody>
<tr>
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### Metric

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Metric Plungers dimensioned in millimeters unless otherwise noted

*SPECIAL SIZES QUOTED UPON REQUEST – SEE QUOTATION FORM ON PAGE 105.
FOR INFORMATION CONCERNING INSTALLATION, SEE PAGE 115.*
Special Plunger Quotation Request Form

Dimension Information:

Thread “A” ______
Body Length “B” ______
Nose Length “C” ______
Nose Diameter “D” ______
Collar Diameter “E” ______ (Press Fit Ball Plunger Only)
Collar Height “F” ______ (Press Fit Ball Plunger Only)

Type Plunger: Ball _____________ Press Fit Ball _____________ Spring _____________ Other _____________
Application _____________________________________________________________________________________________
Thread O.D. ____________________ (Class 2A)

Plunger Travel Distance: ______________________________
Initial Force: ______________________________ Final Force: ______________________________

Locking Element: Yes _____ No _____ (Thread sizes 1/4” and smaller receive a nylon patch, all others receive a nylon pellet.)
Nose/Ball Material: ______________________________ Nose/Ball Finish: ______________________________
Body Material: ______________________________ Body Finish: ______________________________
Spring Material: ______________________________

Applicable Environmental Conditions (Temperature Range, Chemical, Corrosives, Etc.)
_________________________________________________________________________________________________________

Quantity: ____________________ Required Delivery: ______________________________________________________

Please photocopy this page as needed for quotation purposes
Hand Retractable Spring Plunger
Quick Release “Pull Ring”
Steel & Stainless Steel: Locking

- Designed for applications where space is limited
- Plunger can be completely withdrawn into the body and locked into a retracted position
- Chamfered plunger for easy alignment

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part No.</th>
<th>Part No.</th>
<th>Initial</th>
<th>Final</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight (lbs/100pcs)</th>
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</tbody>
</table>

*Black Oxide Finish  **Zinc Plated Clear Chromate Finish

Stubby Hand Retractable Spring Plunger
Quick Release “Pull Ring”
Steel & Stainless Steel: Non-Locking

- Designed for applications where space is limited
- Chamfered plunger for easy alignment
- Withstands side loading

<table>
<thead>
<tr>
<th>Steel Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs)</th>
<th>Thread</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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*No thread relief  **Zinc Plated Clear Chromate Finish
Delrin® Knob Hand Retractable Spring Plungers
Steel & Stainless Steel: Non-Locking

- Contoured knob
- Unified ANSI & metric threads

DELKN KNBD / STEEL BODY:
- Body: Steel
- Nose: Case Hardened Steel
- Knob: Black Delrin

DELKN KNBD / STAINLESS
STEEL BODY:
- Body: Stainless Steel
- Nose: Stainless Steel
- Knob: White Delrin
- Ideal for food and medical applications

Delrin® Knob Hand Retractable Spring Plungers
Steel & Stainless Steel: Locking

- Contoured knob
- Unified ANSI & metric threads

DELKN KNBD / STEEL BODY:
- Body: Steel
- Nose: Case Hardened Steel
- Knob: Black Delrin

DELKN KNBD / STAINLESS
STEEL BODY:
- Body: Stainless Steel
- Nose: Stainless Steel
- Knob: White Delrin
- Ideal for food and medical applications

<table>
<thead>
<tr>
<th>Steel Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs)</th>
<th>Thread A mm (in.)</th>
<th>B mm (in.)</th>
<th>C mm (in.)</th>
<th>D mm (in.)</th>
<th>E mm (in.)</th>
<th>F mm (in.)</th>
<th>G mm (in.)</th>
<th>Hex H mm (in.)</th>
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<td>1.94</td>
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<td>1/2-13</td>
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<td>1.0</td>
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</table>

*No thread relief in 1/4-20 thread size
Initial End Forces = +/-50% Final End Forces = +/-25%

| Metric |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|
| Steel Part No.  | Stainless Steel Part No. | End Force (lbs) | Thread A mm (in.) | B mm (in.) | C mm (in.) | D mm (in.) | E mm (in.) | F mm (in.) | G mm (in.) | Hex H mm (in.) |
| 68350*          | 68450* | .11 .34 | M6 x 1.0 | 13 (.50)  | 3 (.118)  | 3 (.117)  | 12 (.48)  | 25 (.98)  | 16 (.63)  | 6 (.236)        |
| 68351          | 68451 | .22 2.02 | M10 x 1.5 | 20 (.79)  | 5 (.196)  | 6 (.236)  | 19 (.75)  | 38 (1.5)  | 25 (.98)  | 10 (.39)        |
| 68352          | 68452 | .56 1.80 | M12 x 1.75 | 25 (.98)  | 6 (.236)  | 8 (.314)  | 25 (.98)  | 47 (1.85) | 31 (1.2)  | 12 (1.472)      |

*No thread relief in M6 thread size
Initial End Forces = +/-50% Final End Forces = +/-25%

| English |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|
| Steel Part No.  | Stainless Steel Part No. | End Force (lbs) | Thread A mm (in.) | B mm (in.) | C mm (in.) | D mm (in.) | E mm (in.) | F mm (in.) | G mm (in.) | Hex H mm (in.) |
| 58301*          | 58401* | .12 .36 | 1/4-20 | .50      | .13      | .16      | .50      | .97      | .63      | 1/4            |
| 58302          | 58402 | .25 .20 | 3/8-16 | .75      | .18      | .25      | .75      | 1.4      | 1.94     | 3/8            |
| 58303          | 58403 | .50 1.75 | 1/2-13 | 1.0      | .25      | 3.1      | 1.0      | 1.9      | 2.125    | 1/2            |

*No thread relief in 1/4-20 thread size
Initial End Forces = +/-50% Final End Forces = +/-25%
Knurled Knob Hand Retractable Spring Plungers
Steel & Stainless Steel: Non-Locking

- Material:
  - Body: Steel or Stainless Steel
  - Plunger: Steel or Stainless Steel
- Unified ANSI and metric threads
- Hand retractable plunger can be easily engaged and withdrawn
- Chamfered plunger for easy alignment
- Built-in drive wrench for rapid installation and alignment

<table>
<thead>
<tr>
<th>Steel* Black Part No.</th>
<th>Steel** Yellow Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>+.001 -.001 D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Weight (lbs/100pcs)</th>
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<tbody>
<tr>
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<td>10-32 4.00 .094 .104*** 0.38 .250 .190</td>
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</tr>
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<td>54602 54502 54506</td>
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<td>5/16-18 .625 .154 .250 .315 .310</td>
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<tr>
<td>54603 54503 54508</td>
<td>1.00 10.0 M10 x 1.5</td>
<td>1/2-13 .875 .248 .250 .315 .380</td>
<td>8</td>
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</tr>
</tbody>
</table>

*Black Oxide Finish  **Zinc Plated Yellow Chromate Finish  ***Radiused Nose

METRIC

<table>
<thead>
<tr>
<th>Steel** Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D*</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Weight (lbs/100pcs)</th>
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<tr>
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<td>.875 .250 .250 .315 .380 .380</td>
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<td></td>
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</tr>
</tbody>
</table>

*Tolerance: +.000; -.0254 (+.000; -.001) **Zinc Plated Yellow Chromate Finish

Knurled Knob Hand Retractable Spring Plungers
Steel & Stainless Steel: Locking

- Material:
  - Body: Steel or Stainless Steel
  - Plunger: Steel or Stainless Steel
- Unified ANSI and metric threads
- Hand retractable plunger can be easily engaged and withdrawn
- Chamfered plunger for easy alignment
- Built-in drive wrench for rapid installation and alignment
- Plunger can be completely withdrawn into the body and locked into a retracted position

<table>
<thead>
<tr>
<th>Steel Part No.*</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>+.001 -.001 D</th>
<th>E</th>
<th>F</th>
<th>Weight (lbs/100pcs)</th>
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<tbody>
<tr>
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<tr>
<td>54611 54511</td>
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<td>3/8-16 .650 .25 .248 1.0 1.38</td>
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<tr>
<td>54612 54512</td>
<td>.50 4.0 M10 x 1.5</td>
<td>1/2-13 .875 .25 .248 1.0 1.38</td>
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</tbody>
</table>

*Zinc Plated Yellow Chromate Finish

NYLON THREAD LOCKING ELEMENT IS STANDARD ON ALL SIZES
To order ball plungers without a locking element, simply add an “X” to the end of the part number (ex. 52821X). Pricing is the same with or without locking element.
SPRING LOADED DEVICES

Lever Type Plunger: Locking

- Plunger can be completely withdrawn into the body and locked into a retracted position
- Chamfered plunger for easy alignment
- Built in drive wrench for rapid installation and alignment

<table>
<thead>
<tr>
<th>Steel Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A B C D Hex E F Dia G H I</th>
<th>Weight (lbs/100pcs)</th>
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</table>

*No thread relief in 1/4-20 thread size  **Zinc Plated Clear Chromate Finish

METRIC

<table>
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<tr>
<th>Steel Part No.</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A B C D Hex E F Dia G H I</th>
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<td>64202</td>
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<td>64303</td>
<td>64203</td>
<td>1.00 5.00 M12 x 1.75 54 (2.1) 19 (.75) 7 (.275) 6 (2.275) 25.4 (1.0) 4.8 (.19) 32 (1.26) 3.8 (1.15)</td>
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</tr>
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</table>

*No thread relief in M6 thread size  **Zinc Plated Clear Chromate Finish

Steel Hand Retractable Spring Plunger: Locking

- Fully retractable plunger
- Chamfered plunger for easy alignment
- Easy withdrawing and re-engagement

<table>
<thead>
<tr>
<th>Steel Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A B C D Hex E F Dia G H</th>
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</table>

*Black Oxide Finish
SPRING LOADED DEVICES

Lever Type Steel Plunger: Non-Locking

- Fully retractable plunger
- Chamfered plunger for easy alignment
- Easy withdrawing and re-engagement
- Zinc Plated Clear Chromate finish

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Hex E</th>
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</table>

*No thread relief in 1/4-20 thread size

Lever Type Steel Stubby Plunger: Locking

- Designed for applications where space is limited
- Fully retractable plunger
- Chamfered plunger for easy alignment
- Zinc Plated Clear Chromate finish

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Hex E</th>
<th>F</th>
<th>G</th>
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<td>.38</td>
<td>.62</td>
<td>.88</td>
<td>.19</td>
<td>1.25</td>
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</tbody>
</table>

*No thread relief in 1/4-20 thread size

Lever Type Steel Stubby Plunger: Non-Locking

- Designed for applications where space is limited
- Fully retractable plunger
- Chamfered plunger for easy alignment
- Zinc Plated Clear Chromate finish

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial Final</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Hex E</th>
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<td>.88</td>
<td>.19</td>
<td>1.25</td>
</tr>
</tbody>
</table>

*No thread relief in 1/4-20 thread size
**Hex Drive Knob Retractable: Locking**

- Zinc gold chromate finish
- Hand-retractable locking plunger
- Withstands side loading
- Chamfered for easy alignment
- Built in hex drive wrench
- Plunger can be completely withdrawn into the body and locked into a retracted position

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs) Initial</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Hex</th>
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<tbody>
<tr>
<td>58501</td>
<td>1</td>
<td>4</td>
<td>.400</td>
<td>.125</td>
<td>.123</td>
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<td>.805</td>
<td>.125</td>
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<td>58502</td>
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<td>.187</td>
<td>.154</td>
<td>.875</td>
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<td>.125</td>
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<tr>
<td>58503</td>
<td>1</td>
<td>8</td>
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<td>.220</td>
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<td>1.000</td>
<td>1.260</td>
<td>.218</td>
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<tr>
<td>58504</td>
<td>1</td>
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<td>.650</td>
<td>.250</td>
<td>.248</td>
<td>1.250</td>
<td>1.380</td>
<td>.250</td>
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</tbody>
</table>

**T-Handle Retractable Plunger: Locking**

- Easy to grasp handle
- Locking plunger
- Withstands side loading
- Chamfered for easy alignment
- Plunger can be completely withdrawn into the body and locked into a retracted position

<table>
<thead>
<tr>
<th>Steel Part No.*</th>
<th>Stainless Steel Part No.</th>
<th>End Force (lbs) Initial</th>
<th>Thread A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>57701 57750</td>
<td>1.0 2.5</td>
<td>1/4-20</td>
<td>1.14</td>
<td>.250</td>
<td>.155</td>
<td>1.13</td>
<td>.13</td>
<td>.8</td>
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<tr>
<td>57702 57751</td>
<td>2.0 4.0</td>
<td>3/8-16</td>
<td>2.00</td>
<td>.500</td>
<td>.312</td>
<td>2.00</td>
<td>.16</td>
<td>1.4</td>
</tr>
<tr>
<td>57703 57752</td>
<td>2.0 5.0</td>
<td>1/2-13</td>
<td>2.38</td>
<td>.625</td>
<td>.375</td>
<td>2.50</td>
<td>.19</td>
<td>1.7</td>
</tr>
<tr>
<td>57704 57753</td>
<td>2.5 5.0</td>
<td>5/8-11</td>
<td>1.68</td>
<td>.375</td>
<td>.375</td>
<td>1.50</td>
<td>.15</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Zinc Plated Clear Chromate Finish

**NYLON THREAD LOCKING ELEMENT**

IS STANDARD ON ALL SIZES SHOWN ON THIS PAGE

To order ball plungers without a locking element, simply add an “X” to the end of the part number (ex. 52821X). Pricing is the same with or without locking element.
SPRING LOADED DEVICES

Spring Stops

- Material:
  - Body: Aluminum
  - Nose: Steel
- Part Nos. 53100 and 53103 have triangular bodies
- Part Nos. 53101, 53102, 53104 and 53105 have squared bodies as denoted by phantom line drawing
- Two nose styles available:
  - 53100-53102: Square Nose
  - 53103-53105: Round Button Nose
- Ideal for holding and securing parts while clamping

<table>
<thead>
<tr>
<th>Part No.</th>
<th>End Force (lbs)</th>
<th>Stroke</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Nose Style</th>
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<td>11/32</td>
<td>19/32</td>
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<td>1/8</td>
<td>3/8</td>
<td>3/16</td>
<td>3/8</td>
<td>Square</td>
<td></td>
</tr>
<tr>
<td>53101</td>
<td>2</td>
<td>3/16</td>
<td>1-1/8</td>
<td>1/2</td>
<td>15/16</td>
<td>3/4</td>
<td>1/4</td>
<td>5/16</td>
<td>0.193</td>
<td>–</td>
<td>1/4</td>
<td>5/8</td>
<td>5/16</td>
<td>5/8</td>
<td>Square</td>
<td></td>
</tr>
<tr>
<td>53102</td>
<td>16</td>
<td>1/4</td>
<td>1-1/2</td>
<td>11/16</td>
<td>1-1/4</td>
<td>1</td>
<td>5/16</td>
<td>17/32</td>
<td>0.257</td>
<td>–</td>
<td>5/16</td>
<td>3/4</td>
<td>3/8</td>
<td>3/4</td>
<td>Square</td>
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<td>19/32</td>
<td>7/16</td>
<td>3/16</td>
<td>7/32</td>
<td>0.128</td>
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<td>1/8</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Round Button</td>
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<tr>
<td>53104</td>
<td>2</td>
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<td>1-1/8</td>
<td>1/2</td>
<td>7/8</td>
<td>3/4</td>
<td>1/4</td>
<td>5/16</td>
<td>0.193</td>
<td>9/16</td>
<td>3/16</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Round Button</td>
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<tr>
<td>53105</td>
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<td>11/16</td>
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<td>1/4</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Round Button</td>
</tr>
</tbody>
</table>

End Force

Part No. Initial Final Stroke A B C D E F G H J L M N P Nose Style
SPRING LOADED DEVICES

Special Hand Retractable Plunger Quotation Form

Name _______________________________________________________
Company ___________________________________________________
Phone ______________________ Fax ___________________________
Email _______________________________________________________

Please photocopy this page as needed for quotation purposes

PULL RING

Stubby Non-Locking Type
Thread “A” ______________
Body Length “B” ______________
Nose Length “C” ___________
Nose Diameter “D” __________
Hex Flats “E” ______________
Relief Length “F” __________
Pin Protrusion “G” __________
Shank Length “H” __________
Ring Diameter “M” __________

Standard Locking Type
Thread “A” ______________
Body Length “B” ______________
Nose Length “C” ___________
Nose Diameter “D” __________
Ring Diameter “E” __________
Thread Length “F” __________

DELRIN KNOB

Non-Locking Type
Thread “A” ______________
Shank Length “B” __________
Nose Length “C” ___________
Nose Diameter “D” __________
Knob Diameter “E” __________
Handle-to-Body “F” __________
Body Length “G” ___________
Hex Flats “H” ______________

Locking Type
Thread “A” ______________
Shank Length “B” __________
Nose Length “C” ___________
Nose Diameter “D” __________
Knob Diameter “E” __________
Handle-to-Body “F” __________
Knob Diameter “F” __________
Hex Flats “H” ______________

KNURLED KNOB

Non-Locking Type
Thread “A” ______________
Body Length “B” ______________
Nose Length “C” ___________
Nose Diameter “D” __________
Hex Flats “E” ______________
Relief Length “F” __________
Pin Protrusion “G” __________
Shank Length “H” __________

Standard Locking Type
Thread “A” ______________
Body Length “B” ______________
Nose Length “C” ___________
Nose Diameter “D” __________
Hex Flats “E” ______________
Relief Length “F” __________
Pin Protrusion “G” __________
Shank Length “H” __________
Ring Diameter “M” __________

Locking Type
Thread “A” ______________
Thread Length “B” __________
Nose Length “C” ___________
Nose Diameter “D” __________
Knob Diameter “E” __________
Handle-to-Body “F” __________
Knob Diameter “F” __________
Hex Flats “H” ______________

SPRING LOADED DEVICES

**L-HANDLE**

**Standard Non-Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**Stubby Non-Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**Hex Drive Knob**

**Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**T-HANDLE**

**Standard Non-Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**Stubby Non-Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**Locking Type**
- Thread “A” ______________
- Body Length “B” __________
- Nose Length “C” __________
- Nose Diameter “D” __________
- Hex Length “E” __________
- Handle Length “F” __________
- Handle Diameter “G” __________
- Shank Length “H” __________
- Relief Length “I” __________

**OTHER REQUIRED INFORMATION**

- **Locking Element:** ☐ Yes ☐ No
- End Force: Initial _______ Final _______
- Body Material & Finish: __________________________
- Nose Material & Finish: ___________________________ Spring Material: ___________________________ Quantity: ___________
- Required Delivery: ___________ Environmental Conditions: ___________________________
Installation Information for TE-CO Spring Loaded Devices

Most TE-CO Spring & Ball Plungers can be installed using a screwdriver, hex key wrench, or spring/ball plunger wrench (see page 100). Also, many Hand Retractable Spring Plungers can be installed without using any tools by simply using its knob to engage the threads. Because spring loaded devices have hollow bodies, the maximum installation torques they can withstand are significantly less than bolts or screws. The table below should be used as a guideline for installing spring loaded devices.

Most TE-CO Spring Loaded Devices can be ordered with or without a nylon thread locking element (see each product group for details). The nylon-locking element forces the threads on the opposite side of a spring loaded device to compress against the mating threads of a tapped hole, providing the thread locking property. The nylon-locking element can cause installation problems when installing into softer metals or aluminum. This can be prevented by either using a larger tap drill when tapping, by ordering a spring plunger without a locking element, or by requesting a quote for a special plunger that will fit your needs.

When installing spring loaded devices with a nylon thread locking element pellet (thread sizes 5/16” and larger or M8 and larger), TE-CO recommends that the tapped installation hole be countersunk 90 degrees by 1/32 larger than major thread diameter to prevent damage to the locking element.

For more detailed information you may contact any of our knowledgeable TE-CO Customer Service Representatives at 800-543-4071.
Visit our NEW & IMPROVED Website!

Features include:

- Easy pictorial navigation
- Competitor conversion function
- 2D & 3D CAD files for download
- List price under product number
- TE-CO representative locator
- View available literature