PIN & HOOK CLAMPS

Reduce cost by clamping through holes, slots or along edges.

Pin Clamps locate, AND clamp through holes or slots

Hook Clamps offer reduced cost, simple clamping through holes, slots, or along edges

See the BTM Pin & Hook Clamp Line of Products


BTM COMPANY

www.btmcomp.com
810-364-4567
INTRODUCTION

BTM Pin Clamps reduce cost by both accurately locating through datum holes and clamping a part with one device. XYZ location register is achieved by incorporating a clamping finger or hook inside the locator pin thereby eliminating expensive swing arm power clamps.

The less expensive Hook Clamps are used when accurate part location is not required.

BTM Hook Clamps provide simple clamping through holes, slots or along edges further reducing cost. Hooked style fingers clamp over flanged holes.

Pin Clamps and Hook Clamps come in 3 types: Clamping, Retaining, and Locking.

Clamping – PLC and SFC – Air pressure on a piston multiplies the force required to clamp the part to the net surface.

Retaining - RLPC and RLFPC – Air pressure applies both clamping force and retracts a spring loaded rod locker, which upon loss of air engages the finger/hook to retain the clamped part. This light weight and compact clamp is best for material handling and robotic EOAT.

Locking – LPLC and LSFC – A patented air driven cam mechanism maintains clamp force upon removal of air making this clamp ideal for moving fixtures. Clamp force is available within the last 3mm of finger/hook travel making this clamp ideal for clamping multiple part thicknesses.

All BTM Pin and Hook clamps feature 90° positioning of the finger/hook to avoid part obstructions or weld spatter. Round body clamps feature full 360° positioning of the finger/hook.

HOW THEY WORK

PIN CLAMPS (PLC, LPLC, RLPC)

STEP ONE
With the clamp finger retracted, the part is loaded over the locating pin.

STEP TWO
The material rests on the clamp Rest Block (“Donut”).

STEP THREE
The finger swings out of the locating pin with 5mm of rotational travel.

STEP FOUR
The finger has 10mm of straight travel. LPLCs clamp and lock in the last 3mm.

HOOK CLAMPS (SFC, LSFC, RLSFC)

STEP ONE
The part is loaded over the retracted finger and rests on the clamp rest block “donut”.

STEP TWO
The finger swings in the direction of its clamping surface with 5mm of rotational travel.

STEP THREE
The finger has 10mm of straight travel. LSFCs clamp and lock in the last 3mm.

SAFETY NOTE
Customer is responsible for the safe operation and use of the products shown in this literature.
### Table of Contents

**Hole/Slot Range 18.00mm-40.00mm**
- **Clamping Force** 900 - 1334N @ 5.5BAR (200 - 300lbf @ 80PSI)

**Features**
- Compact & Light Weight
- 25mm bore pneumatic cylinder
- Magnetic Position Sensing Switch Option

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**Locking Models**

**LPLC38 Locking Pin Locator Clamp**
- **Hole/Slot Range** 18.00mm-40.00mm
- **Clamping Force** 900 - 1334N @ 5.5BAR (200 - 300lbf @ 80PSI)

**Features**
- Maintains clamping force when locked, even if air pressure is removed or lost.
- Finger relief for flanged hole clearance (25mm, 30mm, 40mm)

**LSFC38 Locking Hook Clamp**
- **Hole/Slot Range** 18.00mm-40.00mm
- **Clamping Force** 900 - 1334N @ 5.5BAR (200 - 300lbf @ 80PSI)

**Features**
- Maintains clamping force when locked, even if air pressure is removed or lost.
- A single clamp finger without a locating pin.

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**Non-Locking Models**

**PLC25 Light Duty Pin Locating Clamp**
- **Hole/Slot Range** 6mm-12.00mm
- **Clamping Force** 231N @ 5.5BAR (52lbf @ 80PSI)

**Features**
- Finger relief for flanged hole clearance (25mm, 30mm, 40mm)

---

**RLPC45 & 63 Rod-Locking Pin Locator Clamps**
- **RLPC45**
  - **Hole/Slot Range** 12.50mm-18.00mm
  - **Clamping Force** 578N @ 5.5BAR (130lbf @ 80PSI)

- **RLPC63**
  - **Hole/Slot Range** 18.00mm-40.00mm
  - **Clamping Force** 1334N @ 5.5BAR (300lbf @ 80PSI)

**Features**
- Retains the part when air pressure is removed or lost.
- Finger relief for flanged hole clearance (25mm, 30mm, 40mm)

**RLSFC63 Rod-Locking Hook Clamp**
- **Hole/Slot Range** 18.00mm-40.00mm
- **Clamping Force** 1334N @ 5.5BAR (300lbf @ 80PSI)

**Features**
- Retains the part when air pressure is removed or lost.
- A single clamp finger without a locating pin.

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**PLC45 Pin Locating Clamp**
- **Hole/Slot Range** 12.50mm-18.00mm
- **Clamping Force** 578N @ 5.5BAR (130lbf @ 80PSI)

**Features**
- A single clamp finger without a locating pin.

**LSFC63 Hook Clamp**
- **Hole/Slot Range** 18.00mm-40.00mm
- **Clamping Force** 1334N @ 5.5BAR (300lbf @ 80PSI)

**Features**
- A single clamp finger without a locating pin.

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**Mounting Information**

**Switch Information**

**Warranty Information**

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BTM COMPANY, LLC • 300 DAVIS ROAD • MARYSVILLE, MI 48040 • Tel: 810-364-4567 • Fax: 810-364-6178 • www.BTMcomp.com
PLC25 LIGHT DUTY PIN CLAMP

A non-locking light duty pin locator clamp designed to clamp through small holes or slots.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>6mm - 12mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>222N @ 5.5BAR (50lbf @ 80PSI)</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>6mm [0.24&quot;] Total Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 3mm [0.12in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 3mm [0.12in] straight line pull down stroke</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>25.4mm [1.00in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>7.0mm [0.28in]</td>
</tr>
<tr>
<td>Recommended Operating Pressure</td>
<td>4.0 - 6.9 BAR [60 - 100 PSI]</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>0.28 kg [0.62 lbs] (depending on pin size)</td>
</tr>
</tbody>
</table>

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

<table>
<thead>
<tr>
<th>CLAMP SELECTION</th>
<th>PIN SELECTION</th>
<th>SENSING</th>
<th>ASSEMBLY NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC25</td>
<td>6.00</td>
<td>MPEDC</td>
<td>PD226300A</td>
</tr>
</tbody>
</table>

**SENSING OPTION**

**MPEDC** = Efector DC Magnetic Position Sensing Switch (Note: 2 switches included & required)

**MPBDC** = Balluf DC Magnetic Position Sensing Switch (Note: 2 switches included & required)

**NS** = No Switch

<table>
<thead>
<tr>
<th>PIN DIAMETER</th>
<th>BTM NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00</td>
<td>PD226300A</td>
</tr>
<tr>
<td>8.00</td>
<td>PD226500A</td>
</tr>
<tr>
<td>10.00</td>
<td>PD226700A</td>
</tr>
<tr>
<td>12.00</td>
<td>PD226900A</td>
</tr>
</tbody>
</table>

Pin Dia. (h7)

See p. 5
PLC25 **LIGHT DUTY PIN CLAMP**

FOR SPECIAL APPLICATIONS DONUT CAP MAY BE ROTATED IN 90° INCREMENTS FINGER POSITION IS FIXED

**PIN DIAMETERS**

**NOTE:** BTM Pin Clamps can be ordered with custom designed (non-standard) pins, donuts, and/or fingers. In such instances, a SPECIAL OPTION number will be issued by BTM’s Product Engineering Department. This number must be referenced when ordering a non-standard pin clamp.
PLC45 PIN CLAMP

A non-locking pin locator clamp designed to clamp through holes or slots.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>12.5mm - 18mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>578N @ 5.5BAR [130lb @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of: • 5mm [0.197in] rotational • 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>44.5mm [1.75in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>15.0mm [0.59in]</td>
</tr>
</tbody>
</table>

Hardened pin Rc 58-62
90° Positive Locating Detents for Spring Locator in Standard Blade Mount. (4) locations

360° Mounting Surface (2) locations

World Switch Package
Can be mounted in four different orientations on PLC45 clamps.

How to Order
Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

Clamp Selection

<table>
<thead>
<tr>
<th>Clamp Series</th>
<th>N</th>
<th>PIN SELECTION</th>
<th>PIN DIAMETER</th>
<th>PIN STYLE</th>
<th>PIN COATING</th>
<th>SENSING</th>
<th>SPECIAL ASSEMBLY NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC45</td>
<td>N</td>
<td>13.00</td>
<td>12.80</td>
<td>PT</td>
<td>BL</td>
<td>PDC</td>
<td>XXXXXXXXX</td>
</tr>
</tbody>
</table>

Clamp Series

<table>
<thead>
<tr>
<th>Port Option</th>
<th>N = 1/8 NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G = G1/8</td>
<td></td>
</tr>
</tbody>
</table>

Additional pin diameters ranging from 12.5 - 18mm are available, but are not standard. Contact BTM Company, LLC, for more information.

Sensing

| NS (No Switch) |
| PDC (Pepperl + Fuchs® DC) [Optional] |
| TDC (Turck DC) [Optional] |

Other switch brands are available. Contact BTM for details.

World Switch Package
Can be mounted in four different orientations on PLC45 clamps.

Contact BTM Company, LLC. - 300 Davis Road • Marysville, MI 48040 • Tel: 810-364-4567 • Fax: 810-364-6178 • www.BTMcomp.com
Section 12.5

MOUNTING SURFACE 35.0

MOUNTING SURFACE 75.0

Ø50 MOUNTING DIAMETER

4.0 ENGAGEMENT (STANDARD HOLE)

4.0 ENGAGEMENT (STANDARD HOLE)

PIN DIAMETERS

Ø16.0 OR Ø15.8

Ø13.0 OR Ø12.8

NOTE: PORT ORIENTATION IS NOT HELD

Positive locking
Detents typ. (4) - 90º apart for use with spring locator in mounts

5.0º - Ø16.0 & Ø15.8

2.5º - Ø13.0 & Ø12.8

Taper per side

TYP. (4) - 90º apart

G1/8 (ORDER OPTION "G") OR 1/8 NPT (ORDER OPTION "N")
CLOSE CLAMP PORT TYP. (4) - 90º apart as shown

G1/8 (ORDER OPTION "G") OR 1/8 NPT (ORDER OPTION "N")
OPEN CLAMP PORT TYP. (3) - 90º apart as shown

Note: If the PLC45 clamp is used on a flanged hole, the finger will clamp on top of the flange.

The material must be kept parallel with the rest block's clamping surface when loading over the pin.

Note: If the PLC45 clamp is used on a flanged hole, the finger will clamp on top of the flange.

The material must be kept parallel with the rest block’s clamping surface when loading over the pin.
PLC63 PIN CLAMP
A non-locking pin locator clamp designed to clamp through holes or slots.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>18mm - 40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>1334N @ 5.5BAR [300lbf @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of: • 5mm [0.197in] rotational • 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>63mm [2.50in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>15.0mm [0.59in]</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**
Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

**CLAMP SELECTION**

<table>
<thead>
<tr>
<th>CLAMP SERIES</th>
<th>N</th>
<th>PIN SELECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC63</td>
<td></td>
<td>N = 3/8 NPT</td>
</tr>
<tr>
<td></td>
<td>G = G1/4</td>
<td></td>
</tr>
</tbody>
</table>

**PIN SELECTION**

<table>
<thead>
<tr>
<th>PIN DIAMETER</th>
<th>Diameter</th>
<th>Clamp Weight</th>
<th>Flange Hole Option?</th>
<th>PIN STYLE</th>
<th>HOLE TYPE</th>
<th>PIN COATING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19.80</td>
<td>3.04kg [6.70lbs]</td>
<td>No</td>
<td>PT = Tapered Pin</td>
<td>SH = Standard</td>
<td>BL = Black Oxide</td>
</tr>
<tr>
<td></td>
<td>20.80</td>
<td>3.04kg [6.70lbs]</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24.80</td>
<td>3.08kg [6.80lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.00</td>
<td>3.08kg [6.80lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>29.80</td>
<td>3.86kg [8.52lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30.00</td>
<td>3.86kg [8.52lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.80</td>
<td>3.92kg [8.65lbs]</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35.00</td>
<td>3.92kg [8.65lbs]</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>39.80</td>
<td>3.99kg [8.79lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.00</td>
<td>3.99kg [8.79lbs]</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See p.9

Additional pin diameters are available, but are not standard. Contact BTM Company, LLC, for more information.

**SENSING**

<table>
<thead>
<tr>
<th>SPECIAL ASSEMBLY NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS (No Switch)</td>
</tr>
<tr>
<td>PDC (Pepperl + Fuchs® DC) [Optional]</td>
</tr>
<tr>
<td>TDC (Turck DC) [Optional]</td>
</tr>
</tbody>
</table>

See p. 23

Other switch brands are available. Contact BTM for details.

**WE DO SPECIALS!**
BTM Pin Clamps can be ordered with custom designed (non-standard) pins, donuts, and/or fingers. In such cases, a SPECIAL ASSEMBLY number will be issued by BTM’s Product Engineering Department. This number must be referenced when ordering a non-standard pin clamp.

Example of a special “donut”

**Manual Operation Available** (Contact BTM for Information)

360° Mounting Surface (2) locations

World Switch Package Can be mounted in four different orientations on PLC63 clamps.

Hardened Pin Rc 58-62

90° Positive Locating Detents for Spring Locator in Standard Blade Mount. (8) locations

HOLE TYPE

| FL = Flanged | FL only available on 25-24.8, 30-29.8, and 40-39.8mm sizes |

See p. 22 for Blade Mount

**Manual Operation Available** (Contact BTM for Information)
**PLC63 PIN CLAMP**

**PIN DIAMETERS**

<table>
<thead>
<tr>
<th>HOLE TYPE</th>
<th>Ø20.0 AND Ø19.8 PINSC</th>
<th>Ø25.0 AND Ø24.8 PINSC</th>
<th>Ø30.0 AND Ø29.8 PINSC</th>
<th>Ø35.0 AND Ø34.8 PINSC</th>
<th>Ø40.0 AND Ø39.8 PINSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGAGEMENT</td>
<td>3.5º TAPER PER SIDE</td>
<td>5.0º TAPER PER SIDE</td>
<td>5.0º TAPER PER SIDE</td>
<td>5.0º TAPER PER SIDE</td>
<td>7.0º TAPER PER SIDE</td>
</tr>
<tr>
<td></td>
<td>16.5</td>
<td>15.6</td>
<td>15.6</td>
<td>15.6</td>
<td>16.1</td>
</tr>
<tr>
<td></td>
<td>Ø20.0 OR Ø19.8 h6</td>
<td>Ø25.0 OR Ø24.8 h6</td>
<td>Ø30.0 OR Ø29.8 h6</td>
<td>Ø35.0 OR Ø34.8 h6</td>
<td>Ø40.0 OR Ø39.8 h6</td>
</tr>
</tbody>
</table>

**NOTES:**

- **G1/4 (ORDER OPTION "G") OR 3/8 NPT (ORDER OPTION "N")**
  - CLOSE CLAMP PORT
  - TYP. (4) - 90º APART
  - AS SHOWN
- **POSITIVE LOCKING DETENTS TYP. (4) - 90º APART FOR USE WITH SPRING LOCATOR IN MOUNTS**
- **CLAMPING SURFACE**
- **MOUNTING DIAMETER**
- **FL/SH AVAILABLE**

**NOTE:**

- If the PLC63 clamp is used on a flanged hole, the finger will clamp over the flange. (25mm, 30mm, and 40mm only)

- The material must be kept parallel with the rest block’s clamping surface when loading over the pin.

The material must be kept parallel with the rest block’s clamping surface when loading over the pin.
SFC63 HOOK CLAMP

A non-locking single finger clamp designed to clamp through holes or slots.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>18mm - 40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>1334N @ 5.5BAR [300lbf @ 80PSI]</td>
</tr>
</tbody>
</table>
| Finger Travel  | 15mm [0.590in] Total. Consists of:  
|                | • 5mm [0.197in] rotational  
|                | • 10mm [0.394in] straight line pull down stroke |
| Bore Diameter  | 63mm [2.50in] |
| Cylinder Stroke| 15.0mm [0.59in] |

90° Positive Locating Detents for Spring Locator in Standard Blade Mount. (8) locations

360° Mounting Surface (2) locations

World Switch Package Can be mounted in four different orientations on SFC63 clamps.

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

CLAMP SELECTION

<table>
<thead>
<tr>
<th>SFC63</th>
<th>N</th>
</tr>
</thead>
</table>

PORT OPTION

| N = 3/8 NPT |
| G = G1/4 |

HOLE/SLOT RANGE

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Clamp Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-18</td>
<td>2.70kg [5.96lbs]</td>
</tr>
<tr>
<td>40-30</td>
<td>3.52kg [7.77lbs]</td>
</tr>
</tbody>
</table>

SENSING

<table>
<thead>
<tr>
<th>PDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Pepperl + Fuchs® DC) [Optional]</td>
</tr>
<tr>
<td>(Turck DC) [Optional]</td>
</tr>
</tbody>
</table>

SPECIAL ASSEMBLY NUMBER

<table>
<thead>
<tr>
<th>XXXXXXXX</th>
</tr>
</thead>
</table>

WE DO SPECIALS!

BTM Single Finger (Hook) Clamps can be ordered with custom designed (non-standard) donuts, and/or fingers. In such cases, a SPECIAL ASSEMBLY number will be issued by BTM’s Product Engineering Department. This number must be referenced when ordering a non-standard single finger (hook) clamp.

Example of a special “donut”

Other switch brands are available. Contact BTM for details.

See p.11

See p. 23
SFC63 HOOK CLAMP

Optional G1/4 or [3/8 NPT]
Open Clamp Port Position
Typ. (4) 90° apart.

Optional G1/4 or [3/8 NPT]
Close Clamp Port Position
Typ. (4) 90° apart.

Note: Radial port position not held due to threaded cylinder end cap

HOLE/SLOT RANGE

29-18 HOLE/SLOT RANGE

40-30 HOLE/SLOT RANGE

BTM COMPANY, LLC • 300 DAVIS ROAD • MARYSVILLE, MI 48040 • Tel: 810-364-4567 • Fax: 810-364-6178 • www.BTMcomp.com
RLPC ROD LOCKING PIN CLAMP

RLPC clamps may be ordered with a rod locking feature, allowing the clamp to retain a part when air pressure is removed/lost. However, clamping force will not maintained. If you need to maintain clamping force after air pressure is removed/lost, please see our LPLC or LSFC.

<table>
<thead>
<tr>
<th>RLPC45</th>
<th>RLPC63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hole/Slot Size</td>
<td>12.5mm - 18mm</td>
</tr>
<tr>
<td></td>
<td>18mm - 40mm</td>
</tr>
<tr>
<td>Clamping Force</td>
<td>578N @ 5.5BAR</td>
</tr>
<tr>
<td></td>
<td>[130lbf @ 80PSI]</td>
</tr>
<tr>
<td></td>
<td>1334N @ 5.5BAR</td>
</tr>
<tr>
<td></td>
<td>[300lbf @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total.</td>
</tr>
<tr>
<td></td>
<td>Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 5mm [0.197in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>45mm [1.77in]</td>
</tr>
<tr>
<td></td>
<td>63mm [2.50in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>15mm [0.59in]</td>
</tr>
</tbody>
</table>

Hardened Pin Rc 58-62

180° Finger Positioning

Internal Rod Lock

Adjustable Switch Cartridge

360° Mounting (2) locations

p.22 for Blade Mount

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

CLAMP SELECTION

<table>
<thead>
<tr>
<th>CLAMP SERIES</th>
<th>CLAMP SIZE</th>
<th>PORT OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>45</td>
<td>G = 3/8 NPT</td>
</tr>
<tr>
<td>63</td>
<td>63</td>
<td>G = 61/4</td>
</tr>
</tbody>
</table>

PIN SELECTION

<table>
<thead>
<tr>
<th>PIN DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
</tr>
<tr>
<td>12.80</td>
</tr>
<tr>
<td>13.00</td>
</tr>
<tr>
<td>14.00</td>
</tr>
<tr>
<td>15.80</td>
</tr>
<tr>
<td>16.00</td>
</tr>
<tr>
<td>19.80</td>
</tr>
<tr>
<td>20.00</td>
</tr>
<tr>
<td>24.80</td>
</tr>
<tr>
<td>25.00</td>
</tr>
<tr>
<td>29.80</td>
</tr>
<tr>
<td>30.00</td>
</tr>
<tr>
<td>34.80</td>
</tr>
<tr>
<td>35.00</td>
</tr>
<tr>
<td>39.80</td>
</tr>
<tr>
<td>40.00</td>
</tr>
</tbody>
</table>

HOLE TYPE

SH = Standard

FINGER POSITION

F1

(No Switch)

F2

(Stick DC) [Optional]

We Do Specials!

BTM Pin Clamps can be ordered with custom designed (non-standard) pins, donuts, and/or fingers. In such cases, a SPECIAL ASSEMBLY number will be issued by BTM’s Product Engineering Department. This number must be referenced when ordering a non-standard pin clamp.

Addendum pin diameters are available, but are not standard. Contact BTM Company, LLC, for more information.
The material must be kept parallel with the rest block’s clamping surface when loading over the pin.

**Note:** If the RLPC45 clamp is used on a flanged hole, the finger will clamp over the flange. (25mm, 30mm, and 40mm only)

**Note:** If the RLPC63 clamp is used on a flanged hole, the finger will clamp on top of the flange. (25mm or 30mm only)

**Note:** If the RLPC45 clamp is used on a flanged hole, the finger will clamp over of the flange. (25mm, 30mm, and 40mm only)

---

**PIN DIAMETERS**

**RLPC45 PINS**

- **14.0mm PIN**
  - Hole Type: SH only
  - Hole Type: FL only
  - Diameter: 28.0

- **16.0mm PIN**
  - Hole Type: SH only
  - Diameter: 28.0

**RLPC63 PINS**

- **20.0mm PIN**
  - Hole Type: SH & FL available
  - Diameter: 50.0

- **25.0mm PIN**
  - Hole Type: SH & FL available
  - Diameter: 50.0

- **30.0mm PIN**
  - Hole Type: SH & FL available
  - Diameter: 40.5

- **35.0mm PIN**
  - Hole Type: SH & FL available
  - Diameter: 40.5

- **40.0mm PIN**
  - Hole Type: SH & FL available
  - Diameter: 40.5
**RLSFC63 ROD LOCKING HOOK CLAMP**

RLSFC clamps may be ordered with a rod locking feature, allowing the clamp to retain a part when air pressure is removed/lost. However, clamping force will not be maintained. If you need to maintain clamping force after air pressure is removed/lost, please see our LPLC or LSFC.

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hole/Slot Size</td>
<td>18mm - 40mm</td>
</tr>
<tr>
<td>Clamping Force</td>
<td>1334N @ 5.5BAR [300lbf @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 5mm [0.197in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>63mm [2.50in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>15mm [0.59in]</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!
RLSFC63 ROD LOCKING HOOK CLAMP

- **Switch Selection**
  - BTM/TURCK DC = BDC
  - NO SWITCH = NS

- **Rod Lock Option**
  - ROD LOCK = RL
  - NO ROD LOCK = X

- **Port Option**
  - G PORTS = G
  - NPT PORTS = N

  **Rod Lock Port**
  - G1/8 OR 1/8 NPT
  - 50 PSI OR GREATER - DISABLES ROD LOCK ALLOWING CLAMP TO RUN NORMALLY
  - LOSS OF PRESSURE ENGAGES LOCK

  **Close Clamp Port**
  - G1/4 OR 3/8 NPT
  - TYP. (2) - 130 APART AS SHOWN

  **Open Clamp Port**
  - G1/4 OR 3/8 NPT
  - TYP. (4) - 90 APART AS SHOWN

  NOTE: PORT ORIENTATION IS NOT HELD

- **Positive Locking Detents**
  - TYP. (4) - 90 APART FOR USE W/SPRING LOCATOR IN MOUNTS

- **Finger Position**
  - CLAMP CLOSED: 22.5
  - CLAMP OPEN: 10.7

- **Model 25**
  - 30-23 HOLE/SLOT RANGE

- **Model 40**
  - 40-36 HOLE/SLOT RANGE

- **Hole/Slot Range**
  - MODEL 25: HOLE/SLOT RANGE 30-23
  - MODEL 40: HOLE/SLOT RANGE 40-36

---

BTM COMPANY, LLC • 300 DAVIS ROAD • MARYSVILLE, MI 48040 • Tel: 810-364-4567 • Fax: 810-364-6178 • www.BTMcomp.com
LPLC38 LOCKING PIN CLAMP

A locking pin locator clamp designed to stay locked and maintain clamping force even if air pressure is removed/lost.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>18mm - 40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>890N - 1334N @ 5.5BAR [200 - 300lbf @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 5mm [0.197in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td></td>
<td>• 3mm [0.118in] locking range (from clamping surface)</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>38mm [1.50in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>38.5mm [1.52in]</td>
</tr>
</tbody>
</table>

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

SPECIAL ASSEMBLY NUMBER

N - 20.00 - PT - SH - BL - PDC - 1 - XXXXXXX

PIN DIAMETER

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Clamp Weight</th>
<th>Flange Hole Option?</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.80</td>
<td>3.54kg [7.81lbs]</td>
<td>No</td>
</tr>
<tr>
<td>20.00</td>
<td>3.54kg [7.81lbs]</td>
<td>No</td>
</tr>
<tr>
<td>24.80</td>
<td>3.59kg [7.91lbs]</td>
<td>Yes</td>
</tr>
<tr>
<td>25.00</td>
<td>3.59kg [7.91lbs]</td>
<td>Yes</td>
</tr>
<tr>
<td>29.80</td>
<td>4.33kg [9.54lbs]</td>
<td>Yes</td>
</tr>
<tr>
<td>30.00</td>
<td>4.33kg [9.54lbs]</td>
<td>Yes</td>
</tr>
<tr>
<td>34.80</td>
<td>4.40kg [9.69lbs]</td>
<td>No</td>
</tr>
<tr>
<td>35.00</td>
<td>4.40kg [9.69lbs]</td>
<td>No</td>
</tr>
<tr>
<td>39.80</td>
<td>4.46kg [9.83lbs]</td>
<td>Yes</td>
</tr>
<tr>
<td>40.00</td>
<td>4.46kg [9.83lbs]</td>
<td>Yes</td>
</tr>
</tbody>
</table>

See p.17 for Dimension Information

Additional pin diameters are available, but are not standard. Contact BTM Company, LLC for more information.

BTM Pin Clamps can be ordered with custom designed (non-standard) pins, donuts, and/or fingers. In such cases, a SPECIAL ASSEMBLY number will be issued by BTM's Product Engineering Department. This number must be referenced when ordering a non-standard pin clamp.

Other switch brands are available. Contact BTM for details.

Example of a special "donut"
The material must be kept parallel with the rest block’s clamping surface when loading over the pin.

**NOTE**

The locking feature of the LPLC38 clamp engages in the last 3mm of the finger stroke.

**Note:** If the LPLC38 clamp is used on a flanged hole, the finger will clamp over of the flange. (25mm, 30mm, and 40mm only)
**LSFC38 LOCKING HOOK CLAMP**

A locking single finger clamp designed to stay locked and maintain clamping force even if air pressure is removed/lost.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>18mm - 40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>890N - 1334N @ 5.5BAR [200 - 300lbf @ 80PSI]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 5mm [0.197in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td></td>
<td>• 3mm [0.118in] locking range (from clamping surface)</td>
</tr>
<tr>
<td>Bore Diameter</td>
<td>38mm [1.50in]</td>
</tr>
<tr>
<td>Cylinder Stroke</td>
<td>38.5mm [1.52in]</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

**CLAMP SELECTION**

<table>
<thead>
<tr>
<th>CLAMP SERIES</th>
<th>LSFC38</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORT OPTION</td>
<td>N = 1/8 NPT</td>
</tr>
<tr>
<td>G = G1/8</td>
<td></td>
</tr>
</tbody>
</table>

**HOLE/SLOT RANGE**

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Clamping Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-18</td>
<td>3.29kg [7.25lbs]</td>
</tr>
<tr>
<td>40-30</td>
<td>3.96kg [8.72lbs]</td>
</tr>
</tbody>
</table>

See p.19 for Dimension Information

**SENSING**

<table>
<thead>
<tr>
<th>SWITCH OPTION</th>
<th>SWITCH POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS (No Switch)</td>
<td>NS (No Switch)</td>
</tr>
<tr>
<td>PDC (Pepperl + Fuchs® DC) [Optional]</td>
<td>1 (Front)</td>
</tr>
<tr>
<td>TDC (Turck DC) [Optional]</td>
<td>2 (Back)</td>
</tr>
</tbody>
</table>

See p. 23

Other switch brands are available. Contact BTM for details.

**SPECIAL ASSEMBLY NUMBER**

XXXxxxx

**WE DO SPECIALS!**

BTM Single Finger (Hook) Clamps can be ordered with custom designed (non-standard) donuts, and/or fingers. In such cases, a SPECIAL ASSEMBLY number will be issued by BTM’s Product Engineering Department. This number must be referenced when ordering a non-standard single finger (hook) clamp.

Example of a special “donut”
LSFC38
LOCKING
HOOK CLAMP

The locking feature of the LSFC38 clamp engages in the last 3mm of the finger stroke.

HOLE/SLOT RANGE

29-18 HOLE RANGE

40-30 HOLE RANGE

The locking feature of the LSFC38 clamp engages in the last 3mm of the finger stroke.
LPLC38M LOCKING MANUAL PIN CLAMP

A locking, manually operated pin locator clamp designed to maintain clamping force in the closed (locked) position.

<table>
<thead>
<tr>
<th>Hole/Slot Size</th>
<th>18mm - 40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force</td>
<td>1112N [250lbf]</td>
</tr>
<tr>
<td>Finger Travel</td>
<td>15mm [0.590in] Total. Consists of:</td>
</tr>
<tr>
<td></td>
<td>• 5mm [0.197in] rotational</td>
</tr>
<tr>
<td></td>
<td>• 10mm [0.394in] straight line pull down stroke</td>
</tr>
<tr>
<td></td>
<td>• 3mm [0.118in] locking range (from clamping surface)</td>
</tr>
</tbody>
</table>

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

CLAMP SELECTION | HANDLE LOCATION | PIN SELECTION | SPECIAL ASSEMBLY NUMBER
LPLC38M | - | L | - | 25.00 | - | PT | SH | BL | XXXXXXXX
L = Left Side of Clamp
R = Right Side of Clamp

Additional pin diameters are available, but are not standard. Contact BTM Company, LLC, for more information.
LPLC38M LOCKING MANUAL PIN CLAMP

**NOTE:** MANUAL CLAMP MOVES THIS WAY AS YOU ADJUST FINGER CLOSE POSITION FROM 0mm TO 3mm GAP

**HANDLE IN CLAMP OPEN POSITION**

- 206.3 - 0mm GAP WHEN CLOSED
- 181.5 - 3mm GAP WHEN CLOSED
- 90.2 - 0mm GAP WHEN CLOSED
- 84.3 - 3mm GAP WHEN CLOSED

**HANDLE IN CLAMP CLOSED POSITION**

- 125.5 - 0mm GAP WHEN CLOSED
- 149.3 - 3mm GAP WHEN CLOSED
- 209.0 - 3mm GAP WHEN CLOSED
- 255.0 - 3mm GAP WHEN CLOSED

**CLAMPING SURFACE (MATERIAL MUST BE KEPT PARALLEL WITH THE DONUT CLAMPING SURFACE)**

- 2X Ø75.0 MOUNTING DIAMETER
- Ø78.5 MOUNT. SURFACE
- 135.0

**CLAMP CAP (2) M5 S.H.C.S. MANUAL CLAMP ASSEMBLY**

**HANDLE IN CLAMP OPEN POSITION**

- 84.3
- 113.2

**HANDLE IN CLAMP CLOSED POSITION**

- 125.5 - 0mm GAP WHEN CLOSED
- 149.3 - 3mm GAP WHEN CLOSED
- 209.0 - 3mm GAP WHEN CLOSED

**PIN DIAMETERS**

- Ø25.0 AND Ø24.8 PINS
- Ø35.0 AND Ø34.8 PINS
- Ø40.0 AND Ø39.8 PINS

**HOLE TYPE:** FL/SH AVAILABLE

**SH ONLY**

**FL/SH AVAILABLE**

**NOTE:** If the LPLC38M clamp is used on a flanged hole, the finger will clamp over of the flange. (25mm, 30mm, and 40mm only)

The material must be kept parallel with the rest block’s clamping surface when loading over the pin.

**NOTE:** MANUAL CLAMP MOVES THIS WAY AS YOU ADJUST FINGER CLOSE POSITION FROM 0mm TO 3mm GAP

**HANDLE IN CLAMP OPEN POSITION**

- 206.3 - 0mm GAP WHEN CLOSED
- 181.5 - 3mm GAP WHEN CLOSED
- 90.2 - 0mm GAP WHEN CLOSED
- 84.3 - 3mm GAP WHEN CLOSED

**HANDLE IN CLAMP CLOSED POSITION**

- 125.5 - 0mm GAP WHEN CLOSED
- 149.3 - 3mm GAP WHEN CLOSED
- 209.0 - 3mm GAP WHEN CLOSED
- 255.0 - 3mm GAP WHEN CLOSED

**CLAMPING SURFACE (MATERIAL MUST BE KEPT PARALLEL WITH THE DONUT CLAMPING SURFACE)**

- 2X Ø75.0 MOUNTING DIAMETER
- Ø78.5 MOUNT. SURFACE
- 135.0

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**HANDLE IN CLAMP OPEN POSITION**

- 84.3
- 113.2

**HANDLE IN CLAMP CLOSED POSITION**

- 125.5 - 0mm GAP WHEN CLOSED
- 149.3 - 3mm GAP WHEN CLOSED
- 209.0 - 3mm GAP WHEN CLOSED

**PIN DIAMETERS**

- Ø25.0 AND Ø24.8 PINS
- Ø35.0 AND Ø34.8 PINS
- Ø40.0 AND Ø39.8 PINS

**HOLE TYPE:** FL/SH AVAILABLE

**SH ONLY**

**FL/SH AVAILABLE**

**NOTE:** If the LPLC38M clamp is used on a flanged hole, the finger will clamp over of the flange. (25mm, 30mm, and 40mm only)

The material must be kept parallel with the rest block’s clamping surface when loading over the pin.

**HOLE TYPE:** FL/SH AVAILABLE

**SH ONLY**

**FL/SH AVAILABLE**

**NOTE:** If the LPLC38M clamp is used on a flanged hole, the finger will clamp over of the flange. (25mm, 30mm, and 40mm only)

The material must be kept parallel with the rest block’s clamping surface when loading over the pin.
BLADE MOUNT INFORMATION

Blade style clamp mounts are currently offered in four different configurations: Insulated or non-insulated for C-flex mounting, and insulated or non-insulated for NAAMS mounting. The insulated mounts are used in welding applications, and come with insulating washers and bushings in the screw holes.

NOTE: It is the customer’s responsibility to insulate any dowels required for mounting.

MOUNT PLACEMENT

PLC45, PLC63, SFC63, RLPC, RLSFC, LPLC38, and LSFC38 models have two mounting surfaces from which to apply the blade mount (upper & lower). This allows the user flexibility in choosing the placement of the clamping surface relative to the mounting surface.

3-WAY SHIM MOUNT AVAILABLE

Contact BTM for more information.

CLAMP ROTATION

Spring locator for positive locating of mounting reference detents.

Detents are located 4 places 90° apart on round body pin clamps. Detents provided for convenience, but do not need to be used.
SWITCH INFORMATION

STANDARD SWITCHES
FOR PLC45, PLC63, SFC63, LPLC38, & LSFC38

PDC - PEPPERL+FUCHS DC
NBN2-F581-160S6-E8-V1

LED INDICATORS
GREEN - POWER ON
YELLOW - S1 OUTPUT ENERGIZED
RED - S2 OUTPUT ENERGIZED

TDC - TURCK DC
Ni2Q6.5AP6-0.16-FS4.4X3/S304

LED INDICATORS
YELLOW - S01 OUTPUT ENERGIZED
GREEN - POWER ON
RED - S02 OUTPUT ENERGIZED

Other switches are also available (including Turck AC), but are not stocked by BTM.

STANDARD SWITCHES
FOR RLPC45, RLPC63, RLSFC63

BDC - TURCK DC
Ni2-BTM-0,16-BDS-2AP6X3-H1141/S34

LED INDICATORS
YELLOW - S01 OUTPUT ENERGIZED
GREEN - POWER ON
RED - S02 OUTPUT ENERGIZED
WARRANTY INFORMATION

BTM Company, LLC. warranties its Pin and Hook Clamps against defects in material and workmanship for one (1) million cycles or a period of three (3) years after the ship date from BTM, which ever comes first.

This warranty is limited to replacing or repairing at BTM’s option, F.O.B. BTM’s factory, any part found by BTM to be defective in materials and/or workmanship. Any application of a BTM product outside the intended use of the product shall not be warranted by BTM Company, LLC. Furthermore, BTM will not be liable for any expenses incurred for repairs or replacement made outside BTM’s facilities without written consent (or damages arising out of such replacements or repairs). Under no circumstances will BTM be held responsible for any consequential damages.

The warranty is limited to the repair or replacement of the defective part(s) and does not include installation.

This warranty is the only warranty extended by the seller in connection with any sale made hereunder and is in lieu of all other warranties, express, implied or statutory including warranties of merchantability and fitness for purpose.

BTM ALSO OFFERS XPC PIN LOCATOR CLAMPS

XPC Clamps are Locking Pin Locator Clamps designed with multiple extension lengths to protrude up into hard to reach locator holes while keeping the bulk of the drive cylinder away from the work area.

<table>
<thead>
<tr>
<th>Model</th>
<th>Hole/Slot Range</th>
<th>Locking?</th>
<th>Manual Option Available?</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPC</td>
<td>24.8-40mm</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

For more information, or to view our other products, please visit:

www.BTMcomp.com