Grippers

APPLICATIONS

PADS

VARIETY

BTM

CORPORATION

www.btmcorp.com
BTM’s PG-38 & PG-45 Locking Grippers are ideal for robotic part handling applications. The Grippers are lightweight for high transfer speeds when used in stamping press applications. Proximity Switches (Status Controllers) are optional. The PG-38 & PG-45 Locking Grippers are designed to provide long service in a production environment. The grippers are designed to remain locked on the part, even if air pressure is lost. The Grippers are available in numerous configurations and allow many configuration changes to be performed in the field.

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BTM’s PG-38 Mini Locking Grippers are small, powerful grippers used in tight or limited areas. They are based on the same technology as the PG-38 and PG-45 Locking Grippers, only in a smaller, more compact package. The Mini Locking Grippers are designed to provide long service in a production environment. They are designed to remained locked on the part, even if air pressure is lost.

BTM’s Sealed Heavy Duty Grippers (SHDG's) are based on BTM's popular STC line of sealed power clamps. The grippers utilize the same patented Tri-Lok mechanism as the STC clamps. This mechanism is completely sealed, making it impervious to weld contamination. They are designed to be used in the harshest of enviroments.
BTM’s Heavy Duty Power Grippers employ a toggle mechanism which multiplies the force and locks on the part when air pressure is applied. They can be ordered with proximity switches included, or with a prox-ready option which allows the user to add their own preferred brand of 12mm or cylinder indicator style proximity switch.

### Heavy Duty Grippers

<table>
<thead>
<tr>
<th>Model</th>
<th>Bore Size</th>
<th>Opening Angle</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG 1500 D-40</td>
<td>1.5”</td>
<td>40°</td>
<td>50</td>
</tr>
<tr>
<td>PG 1500 S-20</td>
<td>1.5”</td>
<td>20°</td>
<td>51</td>
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<td>PG 1500 D-90</td>
<td>1.5”</td>
<td>90°</td>
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<td>PG 1500 S-45</td>
<td>1.5”</td>
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<tr>
<td>PG 1500 D-210</td>
<td>1.5”</td>
<td>210°</td>
<td>54</td>
</tr>
<tr>
<td>PG 1500 S-105</td>
<td>1.5”</td>
<td>105°</td>
<td>55</td>
</tr>
<tr>
<td>PG 1500 V-65/L-1</td>
<td>1”</td>
<td>65° + 1” Linear</td>
<td>56</td>
</tr>
<tr>
<td>PG 2500 V-65/L-1.67</td>
<td>2.5”</td>
<td>65° + 1.67” Linear</td>
<td>57</td>
</tr>
<tr>
<td>PG 2500 D-40</td>
<td>2.5”</td>
<td>40°</td>
<td>58</td>
</tr>
<tr>
<td>PG 2500 S-20</td>
<td>2.5”</td>
<td>20°</td>
<td>59</td>
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<td>PG 2500 D-90</td>
<td>2.5”</td>
<td>90°</td>
<td>60</td>
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<td>PG 2500 S-45</td>
<td>2.5”</td>
<td>45°</td>
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<td>PG 2500 D-210</td>
<td>2.5”</td>
<td>210°</td>
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<td>PG 2500 S-105</td>
<td>2.5”</td>
<td>105°</td>
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### Heavy Duty Gripper Accessories

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BTM’s Omni-Head Grippers feature a rotatable gripper head. This unique Omni-Head can be rotated through a full 360° and locked into position at any chosen point. They are available with proximity switches, or with a prox-ready option.

### Omni-Head Grippers

<table>
<thead>
<tr>
<th>Model</th>
<th>Bore Size</th>
<th>Opening Angle</th>
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<tbody>
<tr>
<td>PGO 100 S-20</td>
<td>1”</td>
<td>20°</td>
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<tr>
<td>PGO 100 D-40</td>
<td>1”</td>
<td>40°</td>
<td>69</td>
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<tr>
<td>PGO 1500 S-20</td>
<td>1.5”</td>
<td>20°</td>
<td>70</td>
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<tr>
<td>PGO 1500 D-40</td>
<td>1.5”</td>
<td>40°</td>
<td>71</td>
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PG-38 Grippers

STANDARD PADS

CUSTOM PADS AVAILABLE
Common Body
Multiple Configurations

Pin "A" adjusts the arm opening to 30°, 45° or 75°.

Pin "B" secures the arms. All arm styles can be interchanged.

Interchangeable Gripper Pads

Pads are common between 38 & 45 models. The pads rotate ±5° to "find" the part. No shims or adjustments are necessary.

pg. 31

Flexible Mounting

The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position. Patent No 5,647,625.

pg. 32

Proximity Switches

Integrated switch package pp. 33-34

Part Stops (PS)

Hardened steel stops position the part and protect the gripper. Part stops are interchangeable between PG-38 & PG-45 models.

Custom part stops can be manufactured to meet your specific application. Contact BTM for details.
PG-38 Locking Grippers

**Locking Grip**
Roller finds detent on the cam surface to hold the part if air pressure is lost.

**Adjustable Opening**
A single pin adjusts the arm opening to 30° or 45°, remove the pin for 75° opening.

### ARM STYLES

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<td>30°, 45° or 75° opening per arm</td>
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<th>PG-38 F</th>
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<tr>
<td>Double Opening Double Chisel Arm</td>
<td>30°, 45° or 75° opening per arm</td>
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<td>30° or 45° opening per arm</td>
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<table>
<thead>
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<th>Style</th>
<th>Description</th>
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<th>PG-38 B</th>
<th>pg. 9</th>
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<td>Single Opening Fixed Pad Arm</td>
<td>30°, 45° or 75° opening</td>
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<td>Single Opening Fixed Single Chisel Arm</td>
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<td>Single Opening Fixed Double Chisel Arm</td>
<td>30°, 45° or 75° opening</td>
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<td>Single Opening Fixed Double Flange Pad Arms</td>
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<tr>
<td>Single Opening Fixed Adaptable Arm</td>
<td>30°, 45° or 75° opening</td>
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</table>
PG-38A ~ Double Opening ~ Pad Arms
BTM No. 730300A

**Specifications**

- **Bores (mm)**: ø38.1 [1.5”]
- **Stroke**:
  - @ 30° = 23.9 [0.94]
  - @ 45° = 26.2 [1.03]
  - @ 75° = 29.3 [1.15]
- **Operating Pressure**: 4 - 5.5 BAR [60 - 80 PSI]
- **Weight**: .9 kg [1.9 lbs.]
- **Gripping Force**:
  - @ 4 BAR = .73 kN [165 lbs.]
  - @ 5.5 BAR = .98 kN [220 lbs.]

**How To Order**

**Model**

- **PG38A - 30 - 3 - 3 - TM - PS - RSPT-DC**

**Options**

- Optional RSP
- Rear Switch Package
- See pp. 33-34

**Gripper Pads**

See pg. 53

**Bore**: ø38.1 [1.5”]

**Strokes**:

- @ 30° = 23.9 [0.94]
- @ 45° = 26.2 [1.03]
- @ 75° = 29.3 [1.15]

**Operating Pressure**: 4 - 5.5 BAR [60 - 80 PSI]

**Weight**: .9 kg [1.9 lbs.]

**Gripping Force**:

- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]
PG-38B ~ Single Opening ~ Pad Arms

BTM No. 730200A

**CAD TEMPLATES AVAILABLE**

Optional RSP Rear Switch Package
See pp. 33-34

**STROKE ADJUSTMENT PIN**

Set Pin To 30° or 45°, No Pin = 75°
Units Ordered as 75° Shipped W/O Pin.

**SPECIFICATIONS**

**BORE:**
\[ \varnothing 38.1 [1.5"] \]

**STROKE:**
- @ 30° = 23.9 [0.94]
- @ 45° = 26.2 [1.03]
- @ 75° = 29.3 [1.15]

**OPERATING PRESSURE:**
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.

**WEIGHT:**
- .9 kg [1.9 lbs.]

**GRIPPING FORCE:**
- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]

**Gripper Pads**
See pg. 63

**HOW TO ORDER**

**MODEL**

PG38B - 30 - 3 - 3 - TM - PS - RSPT-DC

**BTM No.** 730200A

**OPTIONS**
PG-38C ~ Double Opening ~ Single Chisel Arm

BTM No. 730500A

Optional RSP
Rear Switch Package
See pp. 33-34

Gripper Pads
See pg. 63

STROKE:
Set Pin To 30° or 45°, No Pin = 75°
Units Ordered as 75° Shipped W/O Pin.

STROKE ADJUSTMENT PIN
Set To 30°
Set To 45°
Removed for 75°

BORE: \( \phi 38.1 \) [1.5”]
STROKE:
- @ 30° = 23.9 [0.94]
- @ 45° = 26.2 [1.03]
- @ 75° = 29.3 [1.15]
OPERATING PRESSURE:
Use Flow Controls To
Reduce Impact.
WEIGHT: .9 kg [1.9 lbs.]
GRIPPING FORCE:
- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]

HOW TO ORDER

MODEL
PG38C - 30 - 3 - TM - PS - RSPT-DC

ARM STYLE
ARM OPENING (30°, 45°, or 75°)

- UPPER ARM PAD (pg. 31)
- MOUNTS (BM, BM - TM, or HTM - pg. 32)
- PART STOPS (pg. 6)
- REAR SWITCH PACKAGE (pp. 33-34)
- SUPPLY VOLTAGE (AC or DC)

OPTIONS

- RSP
See pp. 33-34

SPECIFICATIONS
PG-38D ~ Single Opening ~ Single Chisel Arm

BTM No. 730400A

SPECIFICATIONS

BORE: ø38.1 [1.5”]

STROKE:
- @ 30° = 23.9 [0.94] in.
- @ 45° = 26.2 [1.03] in.
- @ 75° = 29.3 [1.15] in.

OPERATING PRESSURE:
- 4 - 5.5 BAR [60 - 80 PSI]

Use Flow Controls To Reduce Impact.

WEIGHT:
- .9 kg [1.9 lbs.]
- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]

HOW TO ORDER

MODEL
PG38D - 30 - 3 - TM - PS - RSPT-DC

BTM No. 730400A
PG-38E ~ Double Opening ~ Double Chisel Arm

PG-38E  BTM No. 730700A

**Specification**

- **BORE:** ø38.1 [1.5"]
- **STROKE:**
  - @ 30° = 23.9 [0.94]
  - @ 45° = 26.2 [1.03]
  - @ 75° = 29.3 [1.15]
- **OPERATING PRESSURE:**
  - 4 - 5.5 BAR [60 - 80 PSI]
- **WEIGHT:** .9 kg [1.9 lbs.]
- **GRIPPING FORCE:**
  - @ 4 BAR = .73 kN [165 lbs.]
  - @ 5.5 BAR = .98 kN [220 lbs.]

**How to Order**

- **MODEL:** PG38E - 30 - 3 - TM - PS - RSPT-DC
- **OPTIONS**
  - Optional RSP
  - Rear Switch Package
  - Gripper Pads
  - Upper Arm Pad
  - Mounts (BM, BM - BM, TM, or HTM - pg. 32)
  - Part Stops (pg. 6)
  - Rear Switch Package (pp. 33-34)
  - Supply Voltage (AC or DC)

**Dimensions**

- Stroke Adjustment Pin
  - Set To 30°
  - Set To 45°
  - Removed for 75°

- Max. Mounting Length: 98.3 [3.87]
- Ref.: 220.4 [8.68]
- ø44.45 [1.750]
- 1/8 NPTF

**Other Notes**

- Use Flow Controls To Reduce Impact.
- Gripper Pads
  - See pg. 63
- Optional RSP
  - See pp. 33-34

**Patented**

**BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com**
PG-38F ~ Single Opening ~ Double Chisel Arm

PG-38F  BTM No. 730600A

**Specifications**

**BORE:**  \( \Phi38.1 \text{ [1.5"]} \)

**STROKE:**
- @ 30° = 23.9 [0.94]
- @ 45° = 26.2 [1.03]
- @ 75° = 29.3 [1.15]

**OPERATING PRESSURE:**
4 - 5.5 BAR [60 - 80 PSI]

**WEIGHT:** .9 kg [1.9 lbs.]

**GRIPPING FORCE:**
- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]

**How to Order**

**MODEL**
- PG38D - 30 - 3 - TM - PS - RSPT-DC

**Options**
- BTM No. 730600A

**Patented**
PG-38G ~ Double Opening ~ Flange Pad Arm
PG-38G  BTM No. 734600A

Bore: \( \phi 38.1 \text{ [1.5"]} \)

Stroke:
- @ 30° = 23.9 [0.94]
- @ 45° = 26.2 [1.03]
- @ 75° = 29.3 [1.15]

Operating Pressure: 4 - 5.5 BAR [60 - 80 PSI]

Use Flow Controls To Reduce Impact.

Gripping Force:
- @ 4 BAR = .73 kN [165 lbs.]
- @ 5.5 BAR = .98 kN [220 lbs.]

**How to Order**

**Model**
- PG38G - 30 - 3 - 3 - TM - RSPT-DC

**Options**
- BTM No. 734600A
- Optional RSP Rear Switch Package
- See pp. 33-34

**Specifications**
- BORE: \( \phi 38.1 \text{ [1.5"]} \)
- STROKE:
  - @ 30° = 23.9 [0.94]
  - @ 45° = 26.2 [1.03]
  - @ 75° = 29.3 [1.15]
- OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI]
- Use Flow Controls To Reduce Impact.
- WEIGHT: .9 kg [1.9 lbs.]
- GRIPPING FORCE:
  - @ 4 BAR = .73 kN [165 lbs.]
  - @ 5.5 BAR = .98 kN [220 lbs.]
**PG-38H ~ Single Opening ~ Flange Pad Arms**

**PG-38H  BTM No. 734500A**

**SPECIFICATIONS**

- **BORE:** \( \phi 38.1 \text{ [1.5"]} \)
- **STROKE:**
  - \( 30^\circ = 23.9 \text{ [0.94"]} \)
  - \( 45^\circ = 26.2 \text{ [1.03"]} \)
  - \( 75^\circ = 29.3 \text{ [1.15"]} \)
- **OPERATING PRESSURE:** 4 - 5.5 BAR [60 - 80 PSI]
- **GRIPPING FORCE:**
  - @ 4 BAR = 7.3 kN [165 lbs.]
  - @ 5.5 BAR = 9.8 kN [220 lbs.]

**HOW TO ORDER**

- **MODEL**
- **ARM STYLE**
- **ARM OPENING (30°, 45°, or 75°)**
- **UPPER ARM PAD (pg. 31)**
- **LOWER ARM PAD (pg. 31)**
- **MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)**
- **REAR SWITCH PACKAGE (pp. 33-34)**
- **SUPPLY VOLTAGE (AC or DC)**

**PG38H - 30 - 3 - 3 - TM - RSPT-DC**

**BTM No. 734500A**

**OPTIONS**

**CAD TEMPLATES AVAILABLE**

**PATENTED**

**BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com**
PG-38J ~ Double Opening ~ Adaptable Arm

PG-38J    BTM No. 734800A

Thru for ø6mm Screw (2) Holes on Center per Arm

45.00 Dimension must be maintained within ±0.5mm [.02"] to utilize locking feature when gripping the part.

75° Opening Gripper Not Available

4.5 X Line Pressure (PSI) Length (In.) From Pivot Point To Center Of Gripping Contact

GRIPPING FORCE (lbs.) = 7300 X Line Pressure (Bars) Length (mm) From Pivot Point To Center Of Gripping Contact

GRIPPING FORCE (N) =
PG-38K ~ Single Opening ~ Adaptable Arms
PG-38K BTM No. 734700A

Optional RSP Rear Switch Package
See pp. 33-34

Thru for ø6mm Screw
(2) Holes on Center per Arm

45.00 Dimension must be maintained within ±0.5mm [.02"] to utilize locking feature when gripping the part.

1/8 NPTF
(3) PLACES 90° APART

STROKE: @ 30° = 23.9 [0.94] @ 45° = 26.2 [1.03]

OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.

WEIGHT: .9 kg [1.9 lbs.]

HOW TO ORDER

MODEL  MG38K - 30 - TM - PS - RSPT-DC

BTM No. 734700A OPTIONS

PATENTED
PG-45 Grippers

STANDARD PADS

CUSTOM PADS AVAILABLE
PG-45 Locking Grippers

**MODELS**

- **A**
  - Double Opening Pad Arms
  - 30°, 45° or 75° opening per arm
  - PG-45 A
  - pg. 20

- **B**
  - Single Opening Fixed Pad Arm
  - 30°, 45° or 75° opening
  - PG-45 B
  - pg. 21

- **C**
  - Double Opening Single Chisel Arm
  - 30°, 45° or 75° opening per arm
  - PG-45 C
  - pg. 22

- **D**
  - Single Opening Fixed Single Chisel Arm
  - 30°, 45° or 75° opening
  - PG-45 D
  - pg. 23

- **E**
  - Double Opening Double Chisel Arm
  - 30°, 45° or 75° opening per arm
  - PG-45 E
  - pg. 24

- **F**
  - Single Opening Fixed Double Chisel Arm
  - 30°, 45° or 75° opening
  - PG-45 F
  - pg. 25

- **G**
  - Double Opening Flange Pad Arms
  - 30°, 45° or 75° upper arm opening
  - 16°, 22° or 45° lower arm opening
  - PG-45 G
  - pg. 26

- **H**
  - Single Opening Fixed Flange Pad Arms
  - 30°, 45° or 75° opening
  - PG-45 H
  - pg. 27

- **J**
  - Double Opening Adaptable Arm
  - 30° or 45° opening per arm
  - PG-45 J
  - pg. 28

- **K**
  - Single Opening Fixed Adaptable Arm
  - 30°, 45° or 75° opening
  - PG-45 K
  - pg. 29

**Locking Grip**
Roller finds detent on the cam surface to hold the part if air pressure is lost.

**Adjustable Opening**
A single pin adjusts the arm opening to 30° or 45°, remove the pin for 75° opening.
PG-45A ~ Double Opening ~ Pad Arms

**SPECIFICATIONS**

- **BORE:** \( \varnothing 44.5 \text{ [1.75"]} \)
- **STROKE:**
  - @ 30° = 26.9 [1.06]
  - @ 45° = 29.2 [1.15]
  - @ 75° = 33.8 [1.33]
- **OPERATING PRESSURE:**
  - 4 - 5.5 BAR [60 - 80 PSI]
- **WEIGHT:** 1.4 kg [2.8 lbs.]
- **GRIPPING FORCE:**
  - @ 4 BAR = 2.2 kN [487 lbs.]
  - @ 5.5 BAR = 2.9 kN [650 lbs.]

**HOW TO ORDER**

- **MODEL**
- **ARM STYLE**
- **ARM OPENING (30°, 45°, or 75°)**
- **UPPER ARM PAD** (pg. 31)
- **LOWER ARM PAD** (pg. 31)
- **MOUNTS** (BM, BM - BM, TM, or HTM - pg. 32)
- **PART STOPS** (pg. 6)
- **REAR SWITCH PACKAGE** (pp. 33-34)
- **SUPPLY VOLTAGE** (AC or DC)

**OPTIONS**

- **PG45A - 30 - 3 - 3 - TM - PS - RSPT-DC**

**Cad Templates Available**

Optional RSP Rear Switch Package

See pp. 33-34

*USE FLOW CONTROLS TO REDUCE IMPACT.*
**PG-45B ~ Single Opening ~ Pad Arms**

**PG-45B  BTM No. 728000A**

### Specifications

- **Bore:** $\phi 44.5 [1.75"]$
- **Stroke:**
  - @ $30^\circ$ = 26.9 [1.06] in
  - @ $45^\circ$ = 29.2 [1.15] in
  - @ $75^\circ$ = 33.8 [1.33] in
- **Operating Pressure:** 4 - 5.5 BAR [60 - 80 PSI]
- **Use flow controls to reduce impact.**
- **Weight:** 1.4 kg [2.8 lbs.]
- **Gripping Force:**
  - @ 4 BAR = 2.2 kN [487 lbs.]
  - @ 5.5 BAR = 2.9 kN [650 lbs.]

### How to Order

**Model**
- **Arm Style**
- **Arm Opening (30°, 45°, or 75°)**
- **Upper Arm Pad (pg. 31)**
- **Lower Arm Pad (pg. 31)**
- **Mounts (BM, BM - BM, TM, or HTM - pg. 32)**
- **Part Stops (pg. 6)**
- **Rear Switch Package (pp. 33-34)**
- **Supply Voltage (AC or DC)**

**PG45B - 30 - 3 - 3 - TM - PS - RSPT-DC**

**BTM No. 728000A**

**Options**

### CAD Templates

Available

---

**Optional RSP**
- Rear Switch Package
  - See pp. 33-34

---

**Optional Spacing**
- See pg. 31

---

**Fixed Arm Pin**
- Set pin to 30° or 45°, no pin = 75°
- Units ordered as 75° shipped with/no pin.

---

**Fixed Pads**
- See pg. 31

---

**Specifications**

- **Bore:** $\phi 44.5 [1.75"]$
- **Stroke:**
  - @ $30^\circ$ = 26.9 [1.06] in
  - @ $45^\circ$ = 29.2 [1.15] in
  - @ $75^\circ$ = 33.8 [1.33] in
- **Operating Pressure:** 4 - 5.5 BAR [60 - 80 PSI]
- **Use flow controls to reduce impact.**
- **Weight:** 1.4 kg [2.8 lbs.]
- **Gripping Force:**
  - @ 4 BAR = 2.2 kN [487 lbs.]
  - @ 5.5 BAR = 2.9 kN [650 lbs.]
### PG-45C ~ Double Opening ~ Single Chisel Arm

**PG-45C**  BTM No. 728300A

**CAD TEMPLATES AVAILABLE**

**Optional RSP**
Rear Switch Package
See pp. 33-34

---

### Specifications

**BORE:** \( \phi44.5 \ [1.75"] \)

**STROKE:**
- @ 30° = 26.9 \([1.06]\)
- @ 45° = 29.2 \([1.15]\)
- @ 75° = 33.8 \([1.33]\)

**OPERATING PRESSURE:**
- 4 - 5.5 BAR \([60 - 80 PSI]\)

Use Flow Controls To Reduce Impact.

**WEIGHT:** 1.4 kg \([2.8 lbs.]\)

**GRIPPING FORCE:**
- @ 4 BAR = 2.2 kN \([487 lbs.]\)
- @ 5.5 BAR = 2.9 kN \([650 lbs.]\)

---

### How to Order

**MODEL**

<table>
<thead>
<tr>
<th>ARM STYLE</th>
<th>ARM OPENING (30°, 45°, or 75°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG45C - 30 - 3 - TM - PS - RSPT-DC</td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONS**

- Upper Arm Pad (pg. 31)
- MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)
- PART STOPS (pg. 6)
- REAR SWITCH PACKAGE (pp. 33-34)
- SUPPLY VOLTAGE (AC or DC)

---

**STROKE ADJUSTMENT PIN**

Set Pin To 30° or 45°. No Pin = 75°
Units Ordered as 75° Shipped W/O Pin.

**Gripper Pads**
See pg. 31

---

**Max. Mounting Length**

<table>
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<th>Stroke</th>
<th>Units</th>
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<tbody>
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<tr>
<td>45°</td>
<td>29.2</td>
</tr>
<tr>
<td>75°</td>
<td>33.8</td>
</tr>
</tbody>
</table>

---

**Supply Line**

1/8 NPTF [6.50] Ref.

19 \([.75]\) Single

---

**Bore**

| ø50.00 [1.968] |
| 51.1 [2.01]   |

**Weight**

<table>
<thead>
<tr>
<th>1.4 kg [2.8 lbs.]</th>
</tr>
</thead>
</table>

**Gripping Force**

<table>
<thead>
<tr>
<th>2.2 kN [487 lbs.]</th>
</tr>
</thead>
</table>

---

**RSP**
Rear Switch Package
See pp. 33-34

---

**PG-45C ~ Double Opening ~ Single Chisel Arm**

**BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com**
PG-45D ~ Single Opening ~ Single Chisel Arm

PG-45D    BTM No. 728200A

**CAD TEMPLATES AVAILABLE**

Optional **RSP** Rear Switch Package  See pp. 33-34

**SPECIFICATIONS**

- **BORE:** ø44.5 [1.75"
- **STROKE:**
  - @ 30° = 26.9 [1.06]
  - @ 45° = 29.2 [1.15]
  - @ 75° = 33.8 [1.33]
- **OPERATING PRESSURE:**
  - 4 - 5.5 BAR [60 - 80 PSI]
  - Use Flow Controls To Reduce Impact.
- **WEIGHT:** 1.4 kg [2.8 lbs.]
- **GRIPPING FORCE:**
  - @ 4 BAR = 2.2 kN [487 lbs.]
  - @ 5.5 BAR = 2.9 kN [650 lbs.]

**HOW TO ORDER**

- **MODEL**
- **ARM STYLE**
- **ARM OPENING (30°, 45°, or 75°)**
- **UPPER ARM PAD** (pg. 31)
- **MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)**
- **PARTSTOPS (pg. 6)**
- **REAR SWITCH PACKAGE** (pp. 33-34)
- **SUPPLY VOLTAGE** (AC or DC)

**PG45D - 30 - 3 - TM - PS - RSPT-DC**

BTM No. 728200A **OPTIONS**
PG-45E ~ Double Opening ~ Double Chisel Arm

PG-45E   BTM No. 728500A

Specifications:
- Bore: \( \phi 44.5 \) [1.75"
- Strokes:
  - @ 30° = 26.9 [1.06"
  - @ 45° = 29.2 [1.15"
  - @ 75° = 33.8 [1.33"
- Operating Pressure: 4 - 5.5 BAR [60 - 80 PSI]
- Use Flow Controls to Reduce Impact.
- Weight: 1.4 kg [2.8 lbs.]
- Gripping Force:
  - @ 4 BAR = 2.2 kN [487 lbs.]
  - @ 5.5 BAR = 2.9 kN [650 lbs.]

How to Order:
- Model: PG45E
- Arm Style: 30 - 3 - TM - PS - RSPT-DC
- Options:
  - Upper Arm Pad (pg. 31)
  - Mounts (BM, BM - BM, TM, or HTM - pg. 32)
  - Part Stops (pg. 6)
  - Rear Switch Package (pp. 33-34)
  - Supply Voltage (AC or DC)
PG-45F ~ Single Opening ~ Double Chisel Arm
PG-45F    BTM No. 728400A

Optional RSP
Rear Switch Package
See pp. 33-34

1/8 NPTF
(3) PLACES 90° APART

Stroke Adjustment Pin
Set Pin To 30° or 45°. No Pin = 75°
Units Ordered as 75° Shipped W/O Pin.

Gripper Pads
See pg. 31

1/8 NPTF
ø50.00 [1.968]

Bore:            ø44.5 [1.75"
Stroke: @ 30° = 26.9 [1.06"
@ 45° = 29.2 [1.15"
@ 75° = 33.8 [1.33"

Operating Pressure:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.

Weight:    1.4 kg [2.8 lbs.]
Gripping Force:
@ 4 BAR = 2.2 kN [487 lbs.]
@ 5.5 BAR = 2.9 kN [650 lbs.]

Specifications

Model
PG-45F - 30 - 3 - TM - PS - RSPT-DC

BTM No. 728400A

Options

Patented
PG-45G ~ Double Opening ~ Flange Pad Arms

PG-45G  BTM No. 733100A

HOW TO ORDER

MODEL
ARM STYLE
ARM OPENING (30°, 45°, or 75°)
UPPER ARM PAD (pg. 31)
LOWER ARM PAD (pg. 31)
MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)
PART STOPS (pg. 6)
REAR SWITCH PACKAGE (pp. 33-34)
SUPPLY VOLTAGE (AC or DC)

PG45G - 30 - 3 - 3 - TM - PS - RSPT-DC

BTM No. 733100A

OPTIONS

SPECSIFICATIONS

BORE: ø44.5 [1.75”]
STROKE:
@ 30° = 2.69 [1.06]
@ 45° = 29.2 [1.15]
@ 75° = 33.8 [1.33]
OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.
WEIGHT: 1.4 kg [2.8 lbs.]
GRIPPING FORCE:
@ 4 BAR = 2.2 kN [487 lbs.]
@ 5.5 BAR = 2.9 kN [650 lbs.]

SPECIFICATIONS

BOR>E: ø44.5 [1.75”]
STROKE:
@ 30° = 2.69 [1.06]
@ 45° = 29.2 [1.15]
@ 75° = 33.8 [1.33]
OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.
WEIGHT: 1.4 kg [2.8 lbs.]
GRIPPING FORCE:
@ 4 BAR = 2.2 kN [487 lbs.]
@ 5.5 BAR = 2.9 kN [650 lbs.]
PG-45H ~ Single Opening ~ Flange Pad Arms
PG-45H    BTM No. 733000A

Optional RSP Rear Switch Package
See pp. 33-34

1/8 NPTF
(3) PLACES 90° APART

Gripper Pads
See pg. 31

Model
ARM STYLE
ARM OPENING (30°, 45°, or 75°)
UPPER ARM PAD (pg. 31)
LOWER ARM PAD (pg. 31)
MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)
PART STOPS (pg. 6)
REAR SWITCH PACKAGE (pp. 33-34)
SUPPLY VOLTAGE (AC or DC)

PG45H - 30 - 3 - 3 - TM - PS - RSPT-DC
BTM No. 733000A

How to Order

Specifications
BORE: ø44.5 [1.75"]
STROKE:
@ 30° = 26.9 [1.06]
@ 45° = 29.2 [1.15]
@ 75° = 33.8 [1.33]
OPERATING PRESSURE:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.
WEIGHT: 1.4 kg [2.8 lbs.]
GRIPPING FORCE:
@ 4 BAR = 2.2 kN [487 lbs.]
@ 5.5 BAR = 2.9 kN [650 lbs.]

BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com
PG-45J ~ Double Opening ~ Adaptable Arms

**PG-45J  BTM No. 735000A**

**CAD TEMPLATES AVAILABLE**

**PG-45J ~ Double Opening ~ Adaptable Arms**

**Bore:** Ø44.5 [1.75”]

**Stroke:**
- @ 30° = 26.9 [1.06]
- @ 45° = 29.2 [1.15]

**Operating Pressure:** 4 - 5.5 BAR [60 - 80 PSI]

**Use Flow Controls To Reduce Impact.**

**Weight:** 1.4 kg [2.8 lbs.]

**Gripping Force (lbs.) =** 15 X Line Pressure (PSI) Length (In.) From Pivot Point To Center Of Gripping Contact

**Gripping Force (N) =** 25,000 X Line Pressure (Bars) Length (mm) From Pivot Point To Center Of Gripping Contact

---

**75° Opening Gripper Not Available**

**How to Order**

**Model**

**Arm Style**

**Arm Opening (30° or 45°)**

**Mounts (BM, BM - BM, TM, or HTM - pg. 32)**

**Part Stops (pg. 6)**

**Rear Switch Package (pp. 33-34)**

**Supply Voltage (AC or DC)**

**PG45J - 30 - TM - PS - RSPT-DC**

**BTM No. 735000A**

**Options**

---

**Patented**
PG-45K ~ Single Opening ~ Adaptable Arms
PG-45K    BTM No. 734900A

CAD TEMPLATES AVAILABLE

Optional RSP
Rear Switch Package
See pp. 33-34

1/8 NPTF
(3) PLACES 90° APART

1/8 NPTF
ø50.00 [1.968]

Pivot Point

Fixed Arm Pin

Fixed Arm

Stroke Adjustment Pin
Set Pin To 30° or 45°, No Pin = 75°
Units Ordered as 75° Shipped W/O Pin.

30°

45°

75°

18.6 [7.30]
115.0 [4.53]

Stroke Adjustment Pin
Set To 30°

Stroke Adjustment Pin
Set To 45°

Stroke Adjustment Pin
Set To 75°

Bore: ø44.5 [1.75”]

Stroke:
@ 30° = 26.9 [1.06]
@ 45° = 29.2 [1.15]

Operating Pressure:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.

Weight: 1.4 kg [2.8 lbs.]
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<td>Switch Package (optional)</td>
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<td>See pp. 33-34</td>
<td>See pp. 33-34</td>
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</table>

**Seal Kits: PG-38  BTM No. 018672  PG-45  BTM No. 018628**

Service Tools Required:
1. Adjustable Wrench for Pipe/Hose Fittings
2. 3/16" Allen Wrench for Pipe Plugs
3. 5mm Allen Wrench for Base Mounts
4. 4mm Allen Wrench for Switch Package
5. External Snap Ring Pliers
6. Internal Snap Ring Pliers
7. Spanner for End Cap (BTM Tool No. 020501)
8. Spanner for Switch Package End Cap (BTM Tool No. 020499)
9. Socket for Sensing Rod (BTM Tool No. 020396)

** Details 1, 3 & 4 are omitted when gripper is fitted with switch package.
* 1 Upper & 1 Lower Arm per unit.
**Gripper Pads**

**Interchangeable Gripper Pads**
Fits both PG 38 & PG 45 Models

- ± 5° Self-Aligning Gripper Pads

Custom pads can be manufactured to meet your specific application. Contact BTM for details.

### Selection of Gripper Pad Combinations for Metal Thickness

<table>
<thead>
<tr>
<th>Pad No.</th>
<th>Single Steel Pads</th>
<th>Double Steel Pads</th>
<th>Single Point Pads</th>
<th>Double Point Pads</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>19 - No. 728056A [Y]</td>
<td>20 - No. 728055A [Y]</td>
<td>Use in pairs or w/ Point Pads</td>
<td></td>
</tr>
</tbody>
</table>

- **Single Steel Pads**
  - For Material Thickness See Above
  - Use in pairs or w/ Point Pads

- **Double Steel Pads**
  - For Material Thickness See Above
  - Use in pairs or w/ Point Pads

- **Single Point Pads**
  - For Material Thickness See Above
  - Use w/ Steel or Smooth Pads or Chisel

- **Double Point Pads**
  - For Material Thickness See Above
  - Use w/ Steel or Smooth Pads or Chisel

### Gripper Pad Color Coding:

- [P] = Pink
- [W] = White
- [Y] = Yellow

### Metal Thickness

<table>
<thead>
<tr>
<th>Metal Thickness</th>
<th>Single Steel</th>
<th>Double Steel</th>
<th>Single Point</th>
<th>Double Point</th>
<th>Single Smooth</th>
<th>Double Smooth</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 to 1.0 (.020 to .039)</td>
<td>1+1</td>
<td>3+3</td>
<td>5+11</td>
<td>7+13</td>
<td>11+11</td>
<td>13+13</td>
<td>Pink</td>
</tr>
<tr>
<td>1.1 to 1.5 (.043 to .059)</td>
<td>1+2</td>
<td>3+4</td>
<td>5+12</td>
<td>7+14</td>
<td>11+12</td>
<td>13+14</td>
<td>Pink+White</td>
</tr>
<tr>
<td>1.6 to 2.5 (.063 to .098)</td>
<td>2+2</td>
<td>4+4</td>
<td>6+12</td>
<td>8+14</td>
<td>12+14</td>
<td>14+14</td>
<td>White</td>
</tr>
<tr>
<td>2.6 to 3.0 (.102 to .118)</td>
<td>2+19</td>
<td>4+20</td>
<td>6+21</td>
<td>8+22</td>
<td>12+21</td>
<td>14+22</td>
<td>White+Yellow</td>
</tr>
<tr>
<td>3.1 to 4.0 (.120 to .158)</td>
<td>19+19</td>
<td>20+20</td>
<td>21+21</td>
<td>22+22</td>
<td>22+22</td>
<td>Yellow</td>
<td></td>
</tr>
</tbody>
</table>
**Gripper Mounts**

The round body design and base mount provides 360° rotation and linear adjustment. Two base mounts are recommended.

To order two Base Mounts, use order code twice: Ex. BM - BM

The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position.

The 1 1/4" tube mount is available in 90° and in-line configurations. It is ideal for use with Robot End Arm Effectors and other heavy duty applications.

Contact BTM for availability of 90° tube mount.

---

**BM Base Mount**

PG-38 ~ No. 730200C • PG-45 ~ No. 728000E

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG-38</td>
<td>ø44.5 [1.75]</td>
<td>110.4 [4.35]</td>
<td>52.0 [2.05]</td>
<td>41.7 [1.64]</td>
<td>12.7 [.50]</td>
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<tr>
<td>PG-45</td>
<td>ø50.0 [1.97]</td>
<td>116.2 [4.57]</td>
<td>55.0 [2.17]</td>
<td>41.7 [1.64]</td>
<td>12.7 [.50]</td>
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</table>

**TM Tube Mount**

PG-38 ~ No. 708700D • PG-45 ~ No. 728000D

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG-38</td>
<td>ø25.4 [1&quot;]</td>
<td>25°</td>
<td>25°</td>
<td>25°</td>
<td>25°</td>
</tr>
<tr>
<td>PG-45</td>
<td>ø25.4 [1&quot;]</td>
<td>25°</td>
<td>25°</td>
<td>25°</td>
<td>25°</td>
</tr>
</tbody>
</table>

**HTM 1 1/4" Tube Mount**

PG-38 ~ No. 767400L • PG-45 ~ No. 767400J

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG38</td>
<td>ø44.5 [1.75]</td>
<td>44.1 [1.73]</td>
<td>19.0 [.75]</td>
<td>78.5 [3.09]</td>
<td>3.09</td>
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<tr>
<td>PG45</td>
<td>ø50.0 [1.97]</td>
<td>80.0 [3.15]</td>
<td>152.3 [5.99]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Position Sensors
Single Connector Status Controller
AC or DC Proximity Switch
Senses Open & Closed Positions

RSPT-DC
Rear Switch Package - Turck DC
(N2-Q6.5-AP6-0.20-FS4.4X3-S304)
for PG-38 ~ No. 753700B
for PG-45 ~ No. 753600B

RSPT-AC
Rear Switch Package - Turck AC
(N2-Q6.5-ADZ32-0.16-FB5.4X2-S304)
for PG-38 ~ No. 753700A
for PG-45 ~ No. 753600A

Components

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>PG-38</th>
<th>PG-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC Status Controller*</td>
<td>1</td>
<td>018426</td>
<td>018426</td>
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<tr>
<td></td>
<td>AC Status Controller</td>
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<td>019328</td>
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<tr>
<td>2</td>
<td>Screw</td>
<td>2</td>
<td>016452</td>
<td>016452</td>
</tr>
<tr>
<td>3</td>
<td>Sensor Block</td>
<td>1</td>
<td>753701A</td>
<td>753601A</td>
</tr>
<tr>
<td>4</td>
<td>Screw</td>
<td>1</td>
<td>018495</td>
<td>018495</td>
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<tr>
<td>5</td>
<td>Sensor Can</td>
<td>1</td>
<td>744303A</td>
<td>744303A</td>
</tr>
<tr>
<td>6</td>
<td>Retainer</td>
<td>1</td>
<td>005241</td>
<td>005241</td>
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<tr>
<td>7</td>
<td>Prox Target</td>
<td>1</td>
<td>739501A</td>
<td>739501A</td>
</tr>
<tr>
<td>8</td>
<td>End Cap</td>
<td>1</td>
<td>744401A</td>
<td>744301A</td>
</tr>
<tr>
<td>9</td>
<td>Seal</td>
<td>1</td>
<td>002093</td>
<td>002093</td>
</tr>
<tr>
<td>10</td>
<td>O Ring</td>
<td>1</td>
<td>016643</td>
<td>000271</td>
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<tr>
<td>11</td>
<td>Sensing Rod</td>
<td>1</td>
<td>734301A</td>
<td>734201A</td>
</tr>
</tbody>
</table>

DC ~ Status Controller
Two Sensors
Supply Voltage: 10-30 VDC
Load Current: ≤150mA
Single Connector ~ Conprox®

SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed), order:
TRSPT-DC

AC ~ Status Controller
Two Sensors
Supply Voltage: 20-250 VAC
Load Current: ≤100mA
Single Connector ~ S85

SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed), order:
TRSPT-AC

*Other available switch brands:
Pepperl + Fuchs
RSPP-DC
or
TRSPP-DC (Transposed)

Allen Bradley
RSPAB-DC
or
TRSPAB-DC (Transposed)
Position Sensors
Single Connector C2000 Cylindicator
DC Proximity Switch
Senses Open & Closed Positions

RSPN-DC
Rear Switch Package - Namco DC
EE280-92140
for PG-38 ~ No. 744400A
for PG-45 ~ No. 744300A

Components

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>PG-38</th>
<th>PG-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screw</td>
<td>2</td>
<td>018491</td>
<td>018491</td>
</tr>
<tr>
<td>2</td>
<td>DC Cylindicator</td>
<td>1</td>
<td>019126</td>
<td>019126</td>
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<tr>
<td>3</td>
<td>AC Cylindicator</td>
<td>1</td>
<td>019327</td>
<td>019327</td>
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<tr>
<td>4</td>
<td>Sensor Block</td>
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<tr>
<td>5</td>
<td>Screw</td>
<td>2</td>
<td>019287</td>
<td>019287</td>
</tr>
<tr>
<td>6</td>
<td>Sensor Can</td>
<td>1</td>
<td>744303A</td>
<td>744303A</td>
</tr>
<tr>
<td>7</td>
<td>Retainer</td>
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<td>005241</td>
<td>005241</td>
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<tr>
<td>8</td>
<td>Prox Target</td>
<td>1</td>
<td>739501A</td>
<td>739501A</td>
</tr>
<tr>
<td>9</td>
<td>End Cap</td>
<td>1</td>
<td>744401A</td>
<td>744301A</td>
</tr>
<tr>
<td>10</td>
<td>Seal</td>
<td>1</td>
<td>002093</td>
<td>002093</td>
</tr>
<tr>
<td>11</td>
<td>O Ring</td>
<td>1</td>
<td>002827</td>
<td>002827</td>
</tr>
<tr>
<td>12</td>
<td>Sensing Rod</td>
<td>1</td>
<td>734301A</td>
<td>734201A</td>
</tr>
</tbody>
</table>

**DC ~ Cylindicator**
Two 3-Wire Sensors
Supply Voltage: 10-30 VDC
Load Current: 200mA Max.
Single Connector ~ Euro

SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed), order: TRSPN-DC

**AC ~ Cylindicator**
Two Wire
Supply Voltage: 20-150 VAC
Load Current: 200mA Max.
Single Connector ~ Micro

SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed), order: TRSPN-AC
Mini Locking Grippers

STANDARD PADS
CUSTOM PADS AVAILABLE
PG-38 Mini Locking Grippers

739400A
PG-38MLG-S
Single 65° Opening Arm
pg. 38

739400R
PG-38MLG-S-FM (Flange Mount)
Single 65° Opening Arm
pg. 38

739400E
PG-38MLG-D
Dual 65° Opening Arms
pg. 39

739400S
PG-38MLG-D-FM (Flange Mount)
Dual 65° Opening Arms
pg. 39

739400F
PG-38MLG-SF
Single 65° Opening Flange Arm
pg. 40

739400T
PG-38MLG-SF-FM (Flange Mount)
Single 65° Opening Flange Arm
pg. 40

739400G
PG-38MLG-DF
Dual Opening Flange Arms
65° Upper / 45° Lower Opening
pg. 41

739400U
PG-38MLG-DF-FM (Flange Mount)
Dual Opening Flange Arms
65° Upper / 45° Lower Opening
pg. 41

**Locking Grip**
The BTM gripper uses a cam and roller mechanism to provide high gripping force. The roller engages a detent on the cam surface to hold the part if air pressure is lost.

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BORE:</td>
</tr>
<tr>
<td>STROKE:</td>
</tr>
<tr>
<td>OPERATING PRESSURE:</td>
</tr>
<tr>
<td>WEIGHT:</td>
</tr>
<tr>
<td>GRIPPING FORCE:</td>
</tr>
</tbody>
</table>

**Interchangeable Arm Styles**
The arms are retained by a single pin, allowing quick and easy arm changes.
Gripper Mounts

**BM - Base Mount**
360° rotation and linear adjustment

**TM - Tube Mount 708700D**
The round gripper body design and Tube Mount provides 360° rotation, linear, sliding and swiveling adjustment. The 1” tube mount uses a hardened steel swivel with serrated surfaces to ensure a positive lock. Patent No. 5,647,625

**BM - Base Mount 730200C**

**TM - Tube Mount 708700D**

**HTM - 1 1/4” Tube Mount 767400L**

---

**FM - Flange Mount Dimensions**

**Part Stops**

**Part Stops (PS)**
Hardened steel stops position the part and protect the gripper body from damage.

---

Custom part stops can be manufactured to meet your specific application. Contact BTM for details.
**PG-38MLG ~ Single Opening**

**PG-38MLG-S  BTM No. 739400A**

**CAD TEMPLATES AVAILABLE**

**SPECSIFICATIONS**

- **BORE:** \( \varnothing 38.1 \text{ [1.5"]} \)
- **STROKE:** 20.5 \([0.81"]\)
- **OPERATING PRESSURE:** 4 - 5.5 BAR \([60 - 80 \text{ PSI}]\)
  - Use Flow Controls To Reduce Impact.
- **WEIGHT:** .7 kg \([1.5 \text{ lbs.}]\)
- **GRIPPING FORCE:**
  - @ 4 BAR = .7 kN \([153 \text{ lbs.}]\)
  - @ 5.5 BAR = .9 kN \([205 \text{ lbs.}]\)

**HOW TO ORDER**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>ARM STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG-38MLG-S - 1 - 3 - TM - PS - SPT-DC-R</td>
<td>OPTIONS</td>
</tr>
</tbody>
</table>

**OPTIONS**

- **PART STOPS** (pg. 37)
- **MOUNT** (BM, TM, or HTM - pg. 37)
- **UPPER ARM PAD** (pg. 42)
- **LOWER ARM PAD** (pg. 42)
- **SWITCH PACKAGE** (pg. 42)
- **SUPPLY VOLTAGE** (AC or DC)
- **RIGHT OR LEFT SIDE**

**BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com**
PG-38MLG ~ Double Opening
PG-38MLG-D BTM No. 739400E

1/8 NPTF. (7 Places)
3 Sides on Body
4 Sides on End Cap

65° Opening

FM - Flange Mount Model Gripper
PG-38MLG-D-FM BTM No. 739400S
see pg. 37 for flange mount dimensions

HOW TO ORDER

MODEL
PG-38MLG-D - 1 - 3 - TM - PS - SPT-DC-R
BTM No. 739400E

OPTIONS

ARM STYLE
UPPER ARM PAD (pg. 42)
LOWER ARM PAD (pg. 42)
MOUNT (BM, TM, or HTM - pg. 37)
PART STOPs (pg. 37)
SWITCH PACKAGE (pg. 42)
SUPPLY VOLTAGE (AC or DC)
RIGHT OR LEFT SIDE

SPECIFICATIONS

BORE: \( \phi 38.1 \) [1.5"
STROKE: 20.5 [0.81"

OPERATING PRESSURE:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.
WEIGHT: \(.7 \) kg [1.5 lbs.]
GRIPPING FORCE:
@ 4 BAR = \(.7 \) kN [153 lbs.]
@ 5.5 BAR = \(.9 \) kN [205 lbs.]
PG-38MLG ~ Single Opening Flange Arms
PG-38MLG-SF  BTM No. 739400F

CAD TEMPLATES AVAILABLE

Ø44.45 [1.750]  
1/8 NPTF. (7 Places)  
3 Sides on Body  
4 Sides on End Cap

52.0 [2.05]  
Max. Mounting Length

186.5 [7.34] Ref.

157.0 [6.18]

104.2 [4.10]

17.0 [0.67]  
Pad Width

37.0 [1.46]  
Closed

2.0 [0.08]

Fixed Arm

Gripper Pads
See pg. 42

32.8 [1.29]  
65° Opening

30.0 [1.18]

23.0 [0.91]

8.0 [0.31]

23.0 [0.91]

FM - Flange Mount Model Gripper
PG-38MLG-SF-FM  BTM No. 739400T
see pg. 37 for flange mount dimensions

SPECIFICATIONS

BORE:  ø 38.1 [1.5”]
STROKE:  20.5 [0.81”]

OPERATING PRESSURE:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.

WEIGHT: .7 kg [1.5 lbs.]  
GRIPPING FORCE:
@ 4 BAR = .7 kN [153 lbs.]  
@ 5.5 BAR = .9 kN [205 lbs.]

HOW TO ORDER

MODEL
PG-38MLG-SF - 1 - 3 - TM - PS - SPT-DC-R

BTM No. 739400F

OPTIONS

ARM STYLE
UPPER ARM PAD (p. 42)
LOWER ARM PAD (p. 42)
MOUNT (BM, TM, or HTM - pg. 37)
PART STOPS (p. 37)
SWITCH PACKAGE (p. 42)
SUPPLY VOLTAGE (AC or DC)
RIGHT OR LEFT SIDE
PG-38MLG ~ Double Opening Flange Arms
PG-38MLG-DF BTM No. 739400G

CAD TEMPLATES AVAILABLE

1/8 NPTF. (7 Places) 3 Sides on Body 4 Sides on End Cap

186.5 [7.34] Ref. 104.2 [4.10] 52.0 [2.05]
50.0 [2.0]
Max. Mounting Length

163.5 [6.44] 151.0 [5.94] 32.9 [1.29] 30.0 [1.18] 8.0 [0.31] 23.0 [0.91] 29.0 [1.14]

Gripper Pads
See Page 42

0 0 0

37.0 [1.46] Closed

2.0 [0.06] 17.0 [0.67] 23.0 [0.91] 29.0 [1.14]

FM - Flange Mount Model Gripper
PG-38MLG-DF-FM BTM No. 739400U
see pg. 37 for flange mount dimensions

HOW TO ORDER

MODEL
PG-38MLG-DF - 1 - 3 - TM - PS - SPT-DC-R
BTM No. 739400G

ARM STYLE
UPPER ARM PAD (pg. 42)
LOWER ARM PAD (pg. 42)
MOUNT (BM, TM, or HTM - pg. 37)
PART STOPS (pg. 37)
SWITCH PACKAGE (pg. 42)
SUPPLY VOLTAGE (AC or DC)
RIGHT OR LEFT SIDE

OPTIONS

SPECIFICATIONS

BORE: ø 38.1 [1.5']
STROKE: 20.5 [0.81']

OPERATING PRESSURE:
4 - 5.5 BAR [60 - 80 PSI]
Use Flow Controls To Reduce Impact.
WEIGHT: .7 kg [1.5 lbs.]
GRIPPING FORCE:
@ 4 BAR = .7 kN [153 lbs.]
@ 5.5 BAR = .9 kN [205 lbs.]
Options for PG-38 Mini Locking Grippers

Switch Packages

The switch package can be positioned to the left or right hand side of the gripper. This is done by removing the arms, rotating the body and refitting the arms in the opposite position.

<table>
<thead>
<tr>
<th>Order Code</th>
<th>Description</th>
<th>Ass'y No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPT-DC</td>
<td>TURCK DC - SO2 CLOSED</td>
<td>739400B</td>
</tr>
<tr>
<td>TSPT-DC</td>
<td>TURCK DC - SO2 OPEN</td>
<td>739400K</td>
</tr>
<tr>
<td>SPT-AC</td>
<td>TURCK AC - SO2 CLOSED</td>
<td>739400H</td>
</tr>
<tr>
<td>TSPT-AC</td>
<td>TURCK AC - SO2 OPEN</td>
<td>739400J</td>
</tr>
<tr>
<td>SPP-DC</td>
<td>P&amp;F DC - SO2 CLOSED</td>
<td>739400L</td>
</tr>
<tr>
<td>TSPP-DC</td>
<td>P&amp;F DC - SO2 OPEN</td>
<td>739400M</td>
</tr>
<tr>
<td>SPAB-DC</td>
<td>Allen Bradley DC - SO2 CLOSED</td>
<td>Call BTM</td>
</tr>
<tr>
<td>TSPAB-DC</td>
<td>Allen Bradley DC - SO2 OPEN</td>
<td>Call BTM</td>
</tr>
</tbody>
</table>

More switch brands may be available. Contact BTM for details.

±5° self-aligning gripper pads are easily interchanged to accommodate different material thickness.

---

### Interchangeable Gripper Pads

#### UPPER PADS

<table>
<thead>
<tr>
<th>Material Thickness To Be Gripped</th>
<th>Order No.</th>
<th>BMT Number</th>
</tr>
</thead>
<tbody>
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<td>.5 to 1.0 mm</td>
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<td>739410A</td>
</tr>
<tr>
<td>1.0 to 1.6 mm</td>
<td>1</td>
<td>739410A</td>
</tr>
<tr>
<td>1.6 to 2.5 mm</td>
<td>2</td>
<td>739411A</td>
</tr>
<tr>
<td>2.6 to 3.0 mm</td>
<td>2</td>
<td>739411A</td>
</tr>
<tr>
<td>3.1 to 4.0 mm</td>
<td>13</td>
<td>739423A</td>
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</tbody>
</table>

### LOWER PADS

<table>
<thead>
<tr>
<th>Material Thickness To Be Gripped</th>
<th>Order No.</th>
<th>BMT Number</th>
</tr>
</thead>
<tbody>
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<td>.5 to 1.0 mm</td>
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<td>739412A</td>
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<td>1.0 to 1.6 mm</td>
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<td>739413A</td>
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<tr>
<td>1.6 to 2.5 mm</td>
<td>4</td>
<td>739413A</td>
</tr>
<tr>
<td>2.6 to 3.0 mm</td>
<td>14</td>
<td>739424A</td>
</tr>
<tr>
<td>3.1 to 4.0 mm</td>
<td>14</td>
<td>739424A</td>
</tr>
<tr>
<td>ITEM</td>
<td>DESCRIPTION</td>
<td>QTY</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>End Cap</td>
<td>1</td>
</tr>
<tr>
<td>1A</td>
<td>End Cap (Flange Mount)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Port Plug</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Piston Cap Seal</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Piston Rod Screw</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Piston Washer</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Piston</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Piston Shock</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Body</td>
<td>1</td>
</tr>
<tr>
<td>8A</td>
<td>Body (Flange Mount)</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Cover</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Cover Screw</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Pivot Pin Retainer</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>Arm Pivot Pin</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Pad Pin Retainer</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Pin - Pad to Arm</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>Pad 7, 8 &amp; 16 Lower Smooth</td>
<td>*</td>
</tr>
</tbody>
</table>

* Denotes Optional Components
Sealed Heavy Duty Grippers

STANDARD PADS

CUSTOM PADS AVAILABLE
FEATURES

• Sealed mechanism ~ Lubricated for life of gripper
• Gripper mechanism is impervious to weld contamination
• TRI-LOK mechanism ~ Remains locked if air pressure is lost
• Body style provides NAAMS mounting patterns
• Integral 52mm (2") oval bore cylinder with heavy wall
• Hardcoated aircraft aluminum body for excellent wear characteristics
• Light weight ~ Approximately 4.9 kg. (11 lbs)
• Pin arm drive for versatile arm positioning & Simplified arm change
• Integrated proximity switch package
• Adjustable cushions standard on both advance and retract ends
• Manual Unlock provision for setup

When in the full closed position, the Tri-Lok mechanism is engaged and locks at three points. It will not unlock if air pressure is lost.

This surface repeats its position with a high degree of accuracy (±0° 3') throughout the life of the gripper.
SHDG 52 Sealed Heavy Duty Gripper ~ Single Opening Fixed

SHDG52

CAD TEMPLATES AVAILABLE

Air Port (4) Places
3/8-18 NPTF Port
1/2 - 20 S.A.E. Port or G 1/4 Port also available. Call BTM for details.

This “Adjustment Lock” Dowel allows an adjustment of the fixed arm of 1” total (±½° adjustment)
This eliminates the need for a shim pack type adjustment.

ø8 – K7 Thru (2) Holes

ø8 – K7 – 12 Deep Near & Far Side

ø8 – H7 12 Deep (2) Holes

ø8 – H7 – 12 Deep Near & Far Side

GRIPPER ASSEMBLY NUMBERS

<table>
<thead>
<tr>
<th>ARM OPENING</th>
<th>CYLINDER STROKE</th>
<th>SINGLE OPENING FIXED</th>
</tr>
</thead>
<tbody>
<tr>
<td>30°</td>
<td>25.99</td>
<td>744500A</td>
</tr>
<tr>
<td>45°</td>
<td>33.17</td>
<td>744500B</td>
</tr>
<tr>
<td>60°</td>
<td>40.24</td>
<td>744500C</td>
</tr>
<tr>
<td>75°</td>
<td>47.63</td>
<td>744500D</td>
</tr>
</tbody>
</table>

How to Order

Gripper assembly number
Arm Location: L= Left side, R= Right Side
Movable arm gripper pad *
Fixed arm gripper pad *
Proximity switch options

Recommended operating pressure:
5.5 - 7 bars (80 - 100 PSI)
Compressed air
Adjustable cylinder cushions are standard.

Gripping force on center of gripper pads (N) = 16 * 500 x LINE PRESSURE (Bars)
Gripping force on center of gripper pads (lbs.) = 10 × LINE PRESSURE (P.S.I.)

Equivalent bore size
Ø52mm [Ø2.00 in]

Use flow controls to reduce impact

*Pad numbers may also be called out as 1, 2, 3, 4, etc. See pg. 48 for pads.
SHDG 52 Sealed Heavy Duty Gripper ~ Single Opening Fixed Flange

Other switch brands may be available. Contact BTM for information.

This “Adjustment Lock” Dowel allows an adjustment of the fixed arm of 1° total (±½° adjustment). This eliminates the need for a shim pack type adjustment.

Recommended operating pressure:
- 5.5 - 7 bars (80 - 100 PSI)
- Compressed air
- Adjustable cylinder cushions are standard.

Gripping Force on Center of Gripper Pads (N) = 16 x LINE PRESSURE (Bars)  
85

Gripping Force on Center of Gripper Pads (lbs.) = 10 x LINE PRESSURE (P.S.I.)  
3.35

Equivalent Bore Size
Ø52mm [Ø2.00 in]

Use flow controls to reduce impact

HOW TO ORDER

<table>
<thead>
<tr>
<th>GRIPPER ASSEMBLY NUMBER</th>
<th>ARM LOCATION: L = LEFT SIDE, R = RIGHT SIDE MOVABLE ARM GRIPPER PAD*</th>
<th>FIXED ARM GRIPPER PAD*</th>
<th>PROXIMITY SWITCH OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>744600D - L - 728050A - 733201H - SC2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Pad numbers may also be called out as 1, 2, 3, 4, etc. See pg. 48 for pads.

For dimensions not shown on Flange model, see facing page

Recommended operating pressure: 5.5 - 7 bars (80 - 100 PSI)
Compressed air
Adjustable cylinder cushions are standard.

Gripping Force on Center of Gripper Pads (N) = 16 x LINE PRESSURE (Bars)  
85

Gripping Force on Center of Gripper Pads (lbs.) = 10 x LINE PRESSURE (P.S.I.)  
3.35

Equivalent Bore Size
Ø52mm [Ø2.00 in]

Use flow controls to reduce impact
SHDG 52 Sealed Heavy Duty Gripper

SHDG52 Gripper Accessories

OPTIONAL 1 1/4" TUBE SWIVEL MOUNTS

1 1/4 Tube 90 Degree Swivel Mount
BTM No. 744900D
Weight: 1.3 Kg [2 lbs 9 oz]

1 1/4 Tube 45 Degree Swivel Mount
BTM No. 744900E
Weight: 1.9 Kg [4 lbs 2 oz]

1 1/4 Tube Swivel Mount
BTM No. 744900C
Weight: 1.3 Kg [2 lbs 9 oz]

Gripper Pad Color Coding:
[P]=Pink
[W]=White
[Y]=Yellow

NOTE: URETHANE PADS WORK FOR ALL METAL THICKNESS COMBINATIONS

Gripper Pad
“A” Dimension

Metal Thickness

<table>
<thead>
<tr>
<th>Pad No.</th>
<th>Single Steel Pad (728039A)</th>
<th>“A” = 13.08mm [.515”]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Single Steel Pad (728040A)</td>
<td>“A” = 12.37mm [.487”]</td>
</tr>
<tr>
<td>19</td>
<td>Single Steel Pad (728056A)</td>
<td>“A” = 11.66mm [.459”]</td>
</tr>
</tbody>
</table>

1 Single Steel Pad (728039A) ~ “A” = 13.08mm [.515”]
2 Single Steel Pad (728040A) ~ “A” = 12.37mm [.487”]
19 Single Steel Pad (728056A) ~ “A” = 11.66mm [.459”]

<table>
<thead>
<tr>
<th>Metal Thickness</th>
<th>Single Steel</th>
<th>Double Steel</th>
<th>Single Point</th>
<th>Double Point</th>
<th>Single Smooth</th>
<th>Double Smooth</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 to 1.0</td>
<td>1+1</td>
<td>3+3</td>
<td>5+11</td>
<td>7+13</td>
<td>11+11</td>
<td>13+13</td>
<td>Pink</td>
</tr>
<tr>
<td>1.1 to 1.5</td>
<td>1+2</td>
<td>3+4</td>
<td>5+12</td>
<td>7+14</td>
<td>11+12</td>
<td>13+14</td>
<td>Pink+White</td>
</tr>
<tr>
<td>1.6 to 2.5</td>
<td>2+2</td>
<td>4+4</td>
<td>6+12</td>
<td>8+14</td>
<td>12+12</td>
<td>14+14</td>
<td>White</td>
</tr>
<tr>
<td>2.6 to 3.0</td>
<td>2+19</td>
<td>4+20</td>
<td>6+21</td>
<td>8+22</td>
<td>12+21</td>
<td>14+22</td>
<td>White+Yellow</td>
</tr>
<tr>
<td>3.1 to 4.0</td>
<td>19+19</td>
<td>20+20</td>
<td>21+21</td>
<td>22+22</td>
<td></td>
<td></td>
<td>Yellow</td>
</tr>
</tbody>
</table>

Single Urethane Pads
9/60 - Soft ~ Yellow
No. 728000L
9/90 - Hard ~ Orange
No. 728000J
Use in pairs

Double Urethane Pads
10/60 - Soft ~ Yellow
No. 728000M
10/90 - Hard ~ Orange
No. 728000K
Use in pairs

Single Smooth Pads
For Material Thickness See Above
11 - No. 728047A [P]
12 - No. 728048A [W]
21 - No. 728057A [Y]
Use in pairs or w/ Point Pads

Double Smooth Pads
For Material Thickness See Above
13 - No. 728049A [P]
14 - No. 728050A [W]
22 - No. 728058A [Y]
Use w/ Steel or Smooth Pads or Chisel

Metal Thickness

0.5 to 1.0  [.020 to .039]
1.1 to 1.5  [.043 to .059]
1.6 to 2.5  [.063 to .098]
2.6 to 3.0  [.102 to .118]
3.1 to 4.0  [.120 to .158]

Use in pairs or w/ Point Pads
2500-1500 Series Grippers

STANDARD PADS

2500

CUSTOM PADS AVAILABLE

1500
1500 Series Power Gripper
PG 1500-D 40

Power Gripper

1500 SERIES: 1.5" BORE
ARM OPENING: D40 (DOUBLE 40° OPENING)
FM [FLANGE MOUNT] or BM [BODY MOUNT]
Gripper Pads: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (Pg. 64)
Front Port Position: FP1, FP2, FP3, FP4
Rear Port Position: RP1, RP2, RP3, RP4
Switch Type: AC or DC

Optional Flange Mount End Cap
Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

How to Order

Gripping Force (lbs) = 4 x Line Pressure (P.S.I.)
Length from Point "A" to Center Line of Gripping Contact Area on Gripper Arms (Inches)

Note: Ports will be in position 1 unless otherwise specified.

Specifications
Bore: 1.500"
Stroke: .379"
Total Arm Opening: 40°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 3 lbs.

Drawn and Patented
Manufactured by BTM CORPORATION
Marysville, Michigan USA

Spacers and/or adapters may be necessary. See pg. 66 for more information.
**1500 Series Power Gripper**

**PG 1500-S 20**

**Optional Flange Mount End Cap**

Mounting Style = FM

Rotate End Cap 90° for Port Positions 2 & 4

---

**SPECIFICATIONS**

- **Bore**: 1.500”
- **Stroke**: .379”
- **Total Arm Opening**: 20°
- **Recommended operating pressure**: 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight**: 3 lbs.

**POWER GRIPPER**

**1500 SERIES: 1.5" BORE**

**ARM OPENING: S20 (SINGLE 20° OPENING)**

FM [FLANGE MOUNT] or BM [BODY MOUNT]

**GRIPPING FORCE (lbs) =**

\[
4 \times \text{LINE PRESSURE (P.S.I.)}
\]

**LENGTH FROM POINT “A” TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)**

**HOW TO ORDER**

**PG-1500-S20 - FM - 5272-FP4-RP4-EP2F-EP2R-AC**

Body Mount No. 002220

Flange Mount No. 003320

**OPTIONS**

- For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F
- PR1R, PR2R, PR3R, PR4R

Spacers and/or adapters may be necessary. See pg. 66 for more information.

---

**Note:** For Special Proximity Sensing or Alterations, Please Call BTM for a Quote.

- Drill thru & C’Bore ~ .56 DP for 1/4 SHCS
- (4) Holes ~ This Side / (4) Holes ~ Far Side

Manufactured by

BTM CORPORATION
Marysville, Michigan USA

PATENTED

BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com
**1500 Series Power Gripper**

**PG 1500-D 90**

Optional Flange Mount End Cap

Mounting Style = FM

Rotate End Cap 90° for Port Positions 2 & 4

Note: For Special Proximity Sensing or Alterations, Please Call BTM for a Quote

Ports will be in position 1 unless otherwise specified

CAD TEMPLATES AVAILABLE

**SPECIFICATIONS**

Bore: 1.500”

Stroke: 1.119”

Total Arm Opening: 90°

Recommended operating pressure: 80 - 100 PSI

Use Flow controls to reduce impact

Approx. Weight: 3 lbs.

**HOW TO ORDER**

**POWER GRIPPER**

1500 SERIES: 1.5” BORE

ARM OPENING: D90 (DOUBLE 90° OPENING)

FM (FLANGE MOUNT) or BM (BODY MOUNT)

GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)

FRONT PORT POSITION: FP1, FP2, FP3, FP4

REAR PORT POSITION: RP1, RP2, RP3, RP4


SWITCH TYPE: AC OR DC

*For prox. ready ports, use:

PR1F, PR2F, PR3F, PR4F

PR1R, PR2R, PR3R, PR4R

Spacers and/or adapters may be necessary.

See pg. 66 for more information

**OPTIONS**

<table>
<thead>
<tr>
<th>Body Mount No.</th>
<th>Flange Mount No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>005316</td>
<td>005330</td>
</tr>
</tbody>
</table>

**GRIPPING FORCE (lbs) =**

\[ 2 \times \text{LINE PRESSURE (P.S.I.)} \]

**LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)**

**Note:** Ports will be in position 1 unless otherwise specified

BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com
1500 Series Power Gripper
PG 1500-S 45

**SPECIFICATIONS**

- **Bore**: 1.500"
- **Stroke**: 1.119"
- **Total Arm Opening**: 45°
- **Recommended operating pressure**: 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight**: 3 lbs.

**HOW TO ORDER**

**POWER GRIPPER**

**1500 SERIES**: 1.5" BORE

**ARM OPENING**: S45 (SINGLE 45° OPENING)

**FM (FLANGE MOUNT)** or **BM (BODY MOUNT)**

**Gripper Pads**: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)

**Front Port Position**: FP1, FP2, FP3, FP4

**Rear Port Position**: RP1, RP2, RP3, RP4


**Switch Type**: AC or DC

*For prox. ready ports, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R

- Spacers and/or adapters may be necessary.
- See pg. 66 for more information

**Note**: Ports will be in position 1 unless otherwise specified

**GRIDING FORCE (lbs) =**

\[
\text{GRIDING FORCE (lbs)} = \frac{2 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIDING CONTACT AREA ON GRIDER ARM (INCHES)}}
\]

**Note**: For Special Proximity Sensing or Alterations, please call BTM for a quote

**CAD TEMPLATES AVAILABLE**

1500 Series Power Gripper
PG 1500-S 45

**Optional Flange Mount End Cap**

Mounting Style = FM

Rotate End Cap 90° for Port Positions 2 & 4

**Dimensions for Optional Proximity Switch**

See pg. 65 For Switches

**Self Aligning Gripper Pads**

See pg. 64

**Positive Gripping Position ±3° to 4° Depending on Material Thickness**

**Hardened Steel or Non-marring Urethane (Pins and Retainers Included with Pads)**

**Manufactured by**

BTM CORPORATION
Marysville, Michigan USA

**PATENTED**

**Note**: Ports will be in position 1 unless otherwise specified

**Body Mount No. 005326**

**Flange Mount No. 005329**

**OPTIONS**

<table>
<thead>
<tr>
<th>Body Mount</th>
<th>Flange Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG-1500-S45-FM-5272-FP4-RP4-EP2F-EP2R-AC</td>
<td>OPTIONS</td>
</tr>
</tbody>
</table>

**Spacers and/or adapters may be necessary.**

- See pg. 66 for more information
1.200 Cent.

Note: Ports will be in position 1 unless otherwise specified

2.572

4.525 Ref.

9.60 Ref.

4.525 Ref.

1.25

56 Typ.

1.00

4.02

5.08

Self Aligning Gripper Pads

(See pg. 64)

Dimensions for Optional Proximity Switch

See pg. 65 For Switches

Note: For Special Proximity Sensing or Alterations, Please Call BTM for a Quote

GRIPPING FORCE (lbs) =

2.70 X LINE PRESSURE (P.S.I.)

LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)

For prox. ready ports, use:

PR1F, PR2F, PR3F, PR4F

PR1R, PR2R, PR3R, PR4R

*For prox. ready ports, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R

Spacers and/or adapters may be necessary. See pg. 66 for more information

SPECIFICATIONS
Bore ø: 1.500"
Stroke: 1.509"
Total Arm Opening: 210°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 3 lbs.

HOW TO ORDER
 POWER GRIPPER
1500 SERIES: 1.5” BORE
ARM OPENING: D210 (DOUBLE 210° OPENING)
FM (FLANGE MOUNT) or BM (BODY MOUNT)
GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)
FRONT PORT POSITION: FP1, FP2, FP3, FP4
REAR PORT POSITION: RP1, RP2, RP3, RP4
SWITCH TYPE: AC OR DC

PG-1500-D-210 - FM - 5272-FP4-PR4-EP2F-EP2R-AC

Body Mount No. 004066
Flange Mount No. 005332

OPTIONS

BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com
**1500 Series Power Gripper**  
**PG 1500-S105**

Optional Flange Mount End Cap  
Mounting Style = FM  
Rotate End Cap 90° for Port Positions 2 & 4

**Specifications**  
Bore ø: 1.500"  
Stroke: 1.509"  
Total Arm Opening: 105°  
Recommended operating pressure: 80 - 100 PSI  
Use Flow controls to reduce impact  
Approx. Weight: 3 lbs.

**How to Order**  
Note: Ports will be in position 1 unless otherwise specified

**Power Gripper**  
1500 SERIES: 1.5" BORE  
ARM OPENING: S105 (SINGLE 105° OPENING)  
FM (FLANGE MOUNT) or BM (BODY MOUNT)  
Gripper Pads: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)  
Front Port Position: FP1, FP2, FP3, FP4  
Rear Port Position: RP1, RP2, RP3, RP4  
Switch Type: AC or DC

**PG-1500-S105 - FM - 5272-FP4 - RP4 - EP2F - EP2R - AC**

**Options**

**Self Aligning Gripper Pads**  
(See pg. 64)

**Positive Gripping Position ±3° to 4° Depending on Material Thickness**  
Hardened Steel or Non-marring Urethane  
(Pins and Retainers Included with Pads)

**Dimensions for Optional Proximity Switch**  
See pg. 65 For Switches

**Gripping Force (lbs) = 2.70 X LINE PRESSURE (P.S.I.)**

**Length from Point "A" to Center Line of Gripping Contact Area on Gripper Arm (inches)**

**Note:** For prox. ready ports, use:  
PR1F, PR2F, PR3F, PR4F  
PR1R, PR2R, PR3R, PR4R  
Spacers and/or adapters may be necessary.  
See pg. 66 for more information

**Manufactured by**  
BTM CORPORATION Marysville, Michigan USA  
PATENTED
1500 Series Power Gripper
PG 1500-V65L1

**SPECIFICATIONS**

- **Bore ø:** 1.500”
- **Stroke:** 1.062”
- **Total Arm Opening:** 65° + 1”
- **Recommended operating pressure:** 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight:** 3 lbs.

**HOW TO ORDER**

**POWER GRIPPER**

**1500 SERIES:** 1.5” BORE

**ARM OPENING:** V65L1 (VERTICAL ARM 65° OPENING + 1” LINEAR TRAVEL)

**FM (FLANGE MOUNT) or BM (BODY MOUNT)**

**Gripper Pads:** 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)

**Front Port Position:** FP1, FP2, FP3, FP4

**Rear Port Position:** RP1, RP2, RP3, RP4


**Switch Type:** AC or DC

---

**Note:** Ports will be in position 1 unless otherwise specified.

---

**PG-1500-V65L1 - FM - 5272-FP4 - RP4 - EP2F - EP2R - AC**

- **Body Mount No.:** 005310
- **Flange Mount No.:** 005333

**OPTIONS**

- **Spacers and/or adapters may be necessary.**
- **See pg. 66 for more information**
2500 Series Power Gripper
PG 2500-V65L1.67

SPECIFICATIONS
Bore ø: 2.500"
Stroke: 1.668"
Total Arm Opening: 65°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 11 lbs.

HOW TO ORDER

POWER GRIPPER
2500 SERIES: 2.5° BORE
ARM OPENING: V65-L1.67 (65° OPENING)
FLANGE MOUNT
GRIPPER PADS: 5284,5285,5287,5288,5290,5291 (pg. 65)
FRONT PORT POSITION: FP1, FP2, FP3, FP4
REAR PORT POSITION: RP1, RP2, RP3, RP4
SWITCH TYPE: AC OR DC

PG-2500-V65L1.67 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC

Body Mount No. 006809
Flange Mount No. 006822

OPTIONS

± .001 Dowel
±.010 Screw
2.125
±.010
4.500
±.010
2.980
± .010 Dowel
±.010 Screw
2.125
± .010
3.00 (Body)
1.25
±.010
2.980 (End Cap)
±.010
2.980 (End Cap)
±.010

Note: Ports will be in position 1 unless otherwise specified

SPACERS AND OR ADAPTERS MAY BE NEEDED.
See pg. 66 for more information

Self Aligning Gripper Pads
(See pg. 65)

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)

Optional Flange Mount End Cap - Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

Drill Thru & C'Bore - .75 Deep for 3/8 SHCS
(4) Holes ~ This Side / (4) Holes ~ Far Side

Self Aligning Gripper Pads
(See pg. 65)

Dimensions for Optional Proximity Switch
See pg. 65 For Switches

Positive Gripping Position ±3° to 4°
Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

GRIPPING FORCE (lbs) = 5 X LINE PRESSURE (P.S.I.)
**SPECIFICATIONS**

Bore ø: 2.500"

Stroke: .655"

Total Arm Opening: 40°

Recommended operating pressure: 80 - 100 PSI

Use Flow controls to reduce impact

Approx. Weight: 11 lbs.

**HOW TO ORDER**

POWER GRIPPER

2500 SERIES: 2.5" BORE

ARM OPENING: D40 (DOUBLE 40° OPENING)

FM (FLANGE MOUNT) or BM (BODY MOUNT)

GRIPPER PADS: 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)

FRONT PORT POSITION: FP1, FP2, FP3, FP4

REAR PORT POSITION: RP1, RP2, RP3, RP4


SWITCH TYPE: AC OR DC

PG-2500-D40 - FM - 5284-FP4 - RP4 - EP2F - EP2R - AC

Body Mount No. 001439

Options

Body Mount No. 006813
2500 Series Power Gripper
PG 2500-S 20

**SPECIFICATIONS**

Bore ø: 2.500"  
Stroke: 0.655"  
Total Arm Opening: 20°  
Recommended operating pressure: 80 - 100 PSI  
Use Flow controls to reduce impact  
Approx. Weight: 11 lbs.

**GRIPPING FORCE (lbs) =**  
15 X LINE PRESSURE (P.S.I.)

**LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)**

**HOW TO ORDER**

**POWER GRIPPER**  
2500 SERIES: 2.5" BORE

**ARM OPENING: S20 (SINGLE 20° OPENING)**

FM (FLANGE MOUNT) or BM (BODY MOUNT)

GRIPPER PADS: 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)

FRONT PORT POSITION: FP1, FP2, FP3, FP4  
REAR PORT POSITION: RP1, RP2, RP3, RP4  
SWITCH TYPE: AC OR DC

**PG-2500-S20 - FM - 5284-FP4 -RP4-EP2F -EP2R -AC**

Body Mount No. 002219  
Flange Mount No. 006810  
OPTIONS

*For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F  
PR1R, PR2R, PR3R, PR4R  
Spacers and/or adapters may be necessary.  
See pg. 66 for more information

**Optional Flange Mount End Cap**
Mounting Style = FM  
Rotate End Cap 90° for Port Positions 2 & 4

** Dimensions for Optional Proximity Switch**  
See pg. 65 for switches

**Self Aligning Gripper Pads**  
(See pg. 65)

**Note:** Ports will be in position 1  
unless otherwise specified
2500 Series Power Gripper
PG 2500-D 90

GRIPPING FORCE (lbs) = 6 X LINE PRESSURE (P.S.I.)
LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON ARMS (INCHES)

How to Order

POWER GRIPPER
2500 SERIES: 2.5" BORE
ARM OPENING: D90 (DOUBLE 90° OPENING)
FM (FLANGE MOUNT) or BM (BODY MOUNT)
GRIPPER PADS: 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)
FRONT PORT POSITION: FP1, FP2, FP3, FP4
REAR PORT POSITION: RP1, RP2, RP3, RP4
SWITCH TYPE: AC OR DC

PG-2500-D90 - FM - 5284-FP4 - RP4 - EP2F - EP2R - AC

Note: Ports will be in position 1 unless otherwise specified

Options

Body Mount No. 006808
Flange Mount No. 006820

Specifications

Bore ø: 2.500"
Stroke: 1.708"
Total Arm Opening: 90°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 11 lbs.

Spacers and/or adapters may be necessary.
See pg. 66 for more information

Manufactured by BTM CORPORATION
Marysville, Michigan USA
PATENTED
**2500 Series Power Gripper**  
**PG 2500-S 45**

**SPECIFICATIONS**

- **Bore ø:** 2.500”
- **Stroke:** 1.708”
- **Total Arm Opening:** 45°
- **Recommended operating pressure:** 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight:** 11 lbs.

**HOW TO ORDER**

**POWER GRIPPER**  
**2500 SERIES: 2.5” BORE**

- **ARM OPENING: S45 (SINGLE 45° OPENING)**
- **FM (FLANGE MOUNT) or BM (BODY MOUNT)**
- **GRIPPER PADS:** 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)
- **FRONT PORT POSITION:** FP1, FP2, FP3, FP4
- **REAR PORT POSITION:** RP1, RP2, RP3, RP4
- **SWITCH TYPE:** AC OR DC

**OPTIONS**

- **Body Mount No.** 006807
- **Flange Mount No.** 006818

**Note:** Ports will be in position 1 unless otherwise specified

**FOR PROX. READY PORTS:**

- PR1F, PR2F, PR3F, PR4F
- PR1R, PR2R, PR3R, PR4R

Spacers and/or adapters may be necessary. See pg. 66 for more information

**MANUFACTURED BY**

BTM CORPORATION  
Marysville, Michigan USA

**PATENTED**

**CAD TEMPLATES AVAILABLE**
**2500 Series Power Gripper**

**PG 2500-D 210**

**SPECIFICATIONS**

- **Bore ø:** 2.500”
- **Stroke:** 2.526”
- **Total Arm Opening:** 210°
- **Recommended operating pressure:** 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight:** 11 lbs.

**HOW TO ORDER**

**POWER GRIPPER**

- **2500 SERIES: 2.5” BORE**
- **ARM OPENING:** D210 (DOUBLE 210° OPENING)
  - **FM (FLANGE MOUNT) or BM (BODY MOUNT)**
  - **GRIPPER PADS:** 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)
  - **FRONT PORT POSITION:** EP1, EP2, EP3, FP4
  - **REAR PORT POSITION:** RP1, RP2, RP3, RP4
  - **SWITCH TYPE:** AC OR DC

**OPTONS**

- **PG-2500-D210 - FM - 5284-RP4 - EP2F - EP2R - AC**

**Body Mount No. 006355**

**Flange Mount No. 006816**

**Note:** Ports will be in position 1 unless otherwise specified.

**GRIPPING FORCE (lbs) =**

- 10 X LINE PRESSURE (P.S.I.)
- LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARMS (INCHES)

**CAD TEMPLATES AVAILABLE**

**Manufactured by BTM CORPORATION**

*Marysville, Michigan USA*

**PATENTED**

**Dimensions for Optional Proximity Switch**

See pg. 65 For Switches

**Self Aligning Gripper Pads**

(See pg. 65)

Positive Gripping Position ±3° to 4° Depending on Material Thickness
Hardened Steel or Non-marring Urethane
(Pins and Retainers Included with Pads)

**Positive Gripping Position**

- ±.010 Dowel
- ±.010 Screw
- ±.001 Dowel
- ±.010 Screw

Spacers and/or adapters may be necessary.
See pg. 66 for more information

**FOR PROX. READY PORTS, USE:**

- PR1F, PR2F, PR3F, PR4F
- PR1R, PR2R, PR3R, PR4R

**Spacers and/or adapters may be necessary.**

See pg. 66 for more information
2500 Series Power Gripper
PG 2500-S 105

SPECIFICATIONS
Bore ø: 2.500”
Stroke: 2.526”
Total Arm Opening: 105°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 11 lbs.

GRIPPING FORCE (lbs) = 10 X LINE PRESSURE (P.S.I.)
LENGTH FROM POINT “A” TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)

OPTIONAL FLANGE MOUNT END CAP - MOUNTING STYLE = FM
- Rotate End Cap 90° for Port Positions 2 & 4

HOW TO ORDER
POWER GRIPPER
2500 SERIES: 2.5” BORE
ARM OPENING: S105 (SINGLE S105° OPENING)
FM (FLANGE MOUNT) or BM (BODY MOUNT)
GRIPPER PADS: 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)
FRONT PORT POSITION: FP1, FP2, FP3, FP4
REAR PORT POSITION: RP1, RP2, RP3, RP4
SWITCH TYPE: AC OR DC
* For prox. ready ports, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R
Spacers and/or adapters may be necessary.
See pg. 66 for more information

OPTIONS
PG-2500-S105 - FM - 5284-FP4 - RP4 - EP2F - EP2R - AC

Body Mount No. 006806
Flange Mount No. 006814

BTM CORPORATION • 300 DAVIS ROAD, MARYSVILLE, MI 48040 • Tel: 810-364-4567 Fax: 810-364-6178 www.btmcorp.com
Self-Aligning Gripper Pads
Positive Gripping Position ± 3° to 4° (Dependent on Material Thickness) Eliminates the guesswork of welded-on pads.

Available in Hardened Steel or Non-Marring Urethane. (Sold individually - pins & retainers included.)

### 1500 Series Gripper Pads

#### Steel Pads

<table>
<thead>
<tr>
<th>Pad Type</th>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin Pad</td>
<td>005019</td>
<td>BTM will modify gripper arm(s) to fit Thin Pad.</td>
</tr>
<tr>
<td>Full Pad</td>
<td>005020</td>
<td></td>
</tr>
<tr>
<td>Double Pad</td>
<td>005021</td>
<td></td>
</tr>
</tbody>
</table>

#### Urethane Pads

<table>
<thead>
<tr>
<th>Pad Type</th>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin Pad</td>
<td>005273</td>
<td>BTM will modify gripper arm(s) to fit Thin Pad.</td>
</tr>
<tr>
<td>Full Pad</td>
<td>005272</td>
<td></td>
</tr>
<tr>
<td>Double Pad</td>
<td>005271</td>
<td></td>
</tr>
</tbody>
</table>

#### Special Urethane Pads

<table>
<thead>
<tr>
<th>Pad Type</th>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radius Pad</td>
<td>012742-O</td>
<td>HARD URETHANE (Class 90A)</td>
</tr>
<tr>
<td></td>
<td>012742-Y</td>
<td>SOFT URETHANE (Class 60A)</td>
</tr>
<tr>
<td>Round Soft Pad</td>
<td>017490</td>
<td>SOFT URETHANE (Class 60A)</td>
</tr>
</tbody>
</table>

Special carbide pads are also available in these configurations. Contact BTM for details.
2500 Series Gripper Pads

**Steel Pads**

Special carbide pads are also available in these configurations. Contact BTM for details.

<table>
<thead>
<tr>
<th>Pad Type</th>
<th>Code</th>
<th>THIN PAD</th>
<th>FULL PAD</th>
<th>DOUBLE PAD</th>
<th>END VIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIN PAD</td>
<td>005284</td>
<td>370</td>
<td>761</td>
<td>1.50</td>
<td>3.00</td>
</tr>
<tr>
<td>FULL PAD</td>
<td>005290</td>
<td>75</td>
<td>1.50</td>
<td>2.25</td>
<td>4.25</td>
</tr>
<tr>
<td>DOUBLE PAD</td>
<td>005287</td>
<td>38</td>
<td>1.25</td>
<td>3.77 ø Thru</td>
<td>6.25</td>
</tr>
</tbody>
</table>

**Urethane Pads**

BTM will modify gripper arm(s) to fit Thin Pad.

<table>
<thead>
<tr>
<th>Pad Type</th>
<th>Code</th>
<th>THIN PAD</th>
<th>FULL PAD</th>
<th>DOUBLE PAD</th>
<th>END VIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIN PAD</td>
<td>005285</td>
<td>370</td>
<td>761</td>
<td>1.50</td>
<td>3.00</td>
</tr>
<tr>
<td>FULL PAD</td>
<td>005291</td>
<td>75</td>
<td>1.50</td>
<td>2.25</td>
<td>4.25</td>
</tr>
<tr>
<td>DOUBLE PAD</td>
<td>005288</td>
<td>38</td>
<td>1.25</td>
<td>3.77 ø Thru</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Proximity Switches for 100, 1500 & 2500 Series Grippers

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Code</th>
<th>100 Series Grippers</th>
<th>1500 &amp; 2500 Series Grippers</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC – Normally Open</td>
<td>003176</td>
<td>EP1R 003176 003250 n/a 018067</td>
<td>EP1F 003172 003246 n/a 018069</td>
</tr>
<tr>
<td>DC – Normally Open</td>
<td>003180</td>
<td>EP2R 003176 003250 n/a 018067</td>
<td>EP2F 003172 003246 n/a 018069</td>
</tr>
<tr>
<td>DC – Normally Open (8mm)</td>
<td>003180</td>
<td>EP3R 003176 003250 n/a 018067</td>
<td>EP3F 003172 003246 n/a 018069</td>
</tr>
<tr>
<td>DC – Normally Open</td>
<td>003180</td>
<td>EP4R 003176 003250 n/a 018067</td>
<td>EP4F 003172 003246 n/a 018069</td>
</tr>
</tbody>
</table>

AC SWITCH ASSEMBLIES

<table>
<thead>
<tr>
<th>1500</th>
<th>2500</th>
<th>100 OMNI</th>
<th>1500 OMNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>003241</td>
<td>003259</td>
<td>n/a</td>
<td>018068</td>
</tr>
<tr>
<td>003241</td>
<td>003259</td>
<td>n/a</td>
<td>018068</td>
</tr>
<tr>
<td>003241</td>
<td>003259</td>
<td>n/a</td>
<td>018068</td>
</tr>
<tr>
<td>003241</td>
<td>003259</td>
<td>n/a</td>
<td>018068</td>
</tr>
</tbody>
</table>

DC SWITCH ASSEMBLIES

<table>
<thead>
<tr>
<th>1500</th>
<th>2500</th>
<th>100 OMNI</th>
<th>1500 OMNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>003245</td>
<td>003263</td>
<td>003266</td>
<td>003273</td>
</tr>
<tr>
<td>003237</td>
<td>003255</td>
<td>003265</td>
<td>003273</td>
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<tr>
<td>003237</td>
<td>003255</td>
<td>003265</td>
<td>003273</td>
</tr>
<tr>
<td>003237</td>
<td>003255</td>
<td>003265</td>
<td>003273</td>
</tr>
</tbody>
</table>

Senses gripper in OPEN position

Senses gripper in CLOSED position
1500 & 2500 Series Power Grippers
Prox Switch Ordering Options

BTM 12mm Prox Switch


The BTM 12mm Prox Switch Assembly includes the switch, an adapter for the 3/8 NPTF port, and the O-ring seal.

To order the gripper prox ready only for a 12mm prox switch, you must also order the 12mm to 3/8 NPTF adapter for each prox position - BTM No. 006064 (includes O-ring)

Cylindicator Mounting

NOTE: BTM does not provide cylindicators.

To order the gripper prox ready only for a Cylindicator Style switch, you may need to order a spacer which mounts between the cylindicator mounting face and the gripper body. Use the chart below to determine the appropriate spacer required based on the cylindicator probe length.

For 1500 Series Grippers:
The cylinder end cap of the 1500 series gripper does not include 1/4-20 tapped holes on either side of the air ports. Instead, two 9/32 clearance holes are provided to mount the cylindicator. Two 1/4-20 threaded inserts (BTM No. 018669) are included with any 1500 prox ready gripper.

O-Ring is included with spacer
Omni Series Grippers

STANDARD PADS

CUSTOM PADS AVAILABLE
**SPECIFICATIONS**

- **Bore ø:** 1.00"
- **Stroke:** .26"
- **Total Arm Opening:** 20°
- **Recommended operating pressure:** 80 - 100 PSI
- **Use Flow controls to reduce impact**
- **Approx. Weight:** 12 OZ.

**HOW TO ORDER**

**POWER GRIPPER OMNI (PGO)**

100 SERIES: 1.00 Bore

- **ARM OPENING:** S20 (SINGLE 20° OPENING)
- **FRONT ELECTRIC PROXIMITY POSITION:** EP2F, EP4F *
- **REAR ELECTRICAL PROXIMITY POSITION:** EP5R *
- **SWITCH TYPE:** DC ONLY
- **SWITCH TYPE:** AC OR DC

**PGO-100-S20 - EP2F-DC-EP5R-AC**

BTM No. 002858 OPTIONS

See pg. 65 for prox switch information
100 Series Omni Gripper
PGO-100-D40

HOW TO ORDER

POWER GRIPPER OMNI (PGO)
100 SERIES: 1.00 BORE
ARM OPENING: D40 (DOUBLE 40° OPENING)
FRONT ELECTRIC PROXIMITY POSITION: EP2F, EP4F *
SWITCH TYPE: DC ONLY
REAR ELECTRICAL PROXIMITY POSITION: EP5R *
SWITCH TYPE: AC OR DC

PGO-100-D40 - EP2F-DC-EP5R-AC
BTM No. 002859

OPTIONS

*For prox. ready ports, use: PR2F, PR4F, PR5R

See pg. 65 for prox switch information

CLAMP FORCE (lbs) = .5 \times \text{LINE PRESSURE (P.S.I.)}
\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}

Specifications:
Bore ø: 1.00"
Stroke: .26"
Total Arm Opening: 40°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 12 OZ.

The omni head locks into position when the clamp mounting screws are tightened.

See Pg. 65 For Proximity Switches

Note: For special proximity sensing or alterations, please call BTM Corporation for a quote.

OMNI-HEAD GRIPPER WITH ARMS IN RETRACTED POSITION
OMNI-HEAD GRIPPER WITH ARMS IN ADVANCED POSITION
OMNI-HEAD GRIPPER WITH ARMS IN OFF CENTER POSITION
OMNI-HEAD MAY BE MANUALLY ROTATED 360° AND LOCKED INTO POSITION.

Manufactured by
BTM CORPORATION
Marysville, Michigan USA
PATENTED

CAD TEMPLATES AVAILABLE
1500 Series Omni Gripper
PGO-1500-S20

CLAMP FORCE (lbs) = 4 X LINE PRESSURE (P.S.I.)
LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)

SPECIFICATIONS
Bore ø: 1.50”
Stroke: .41”
Arm Opening: 20°
Recommended operating pressure: 80 - 100 PSI
Use Flow controls to reduce impact
Approx. Weight: 3 lbs.

HOW TO ORDER
POWER GRIPPER OMNI (PGO)
1500 SERIES: 1.50 BORE
ARM OPENING: S20 (SINGLE 20° OPENING)
Gripper Pads: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (Pg. 64)
Switch Type: AC or DC

PGO-1500-S20 - 5019 - EP1F-EP1R-AC
BTM No. 017550 OPTIONS

* For prox. ready locations, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R, PR5R

See Pg. 65 For Proximity Switches
Note: For special proximity sensing or alterations, please call BTM Corporation for a quote.

OMNI-HEAD GRIPPER WITH ARMS IN RETRACTED POSITION
Arms advanced in off center position.
Arms retracted in off center position.

Omni-Head Gripper with arms in retracted position on center.
Arms advanced in off center position.

Manufactured by BTM CORPORATION
Marysville, Michigan USA
PATENTED
1500 Series Omni Gripper
PGO-1500-D40

**SPECIFICATIONS**
- Bore Ø: 1.50"
- Stroke: .41" 
- Arm Opening: 40° 

Recommended operating pressure: 80 - 100 PSI 
Use flow controls to reduce impact 
Approx. weight: 3 lbs.

**HOW TO ORDER**

**POWER GRIPPER OMNI (PGO)**

1500 SERIES: 1.50 BORE

ARM OPENING: D40 (DOUBLE 40° OPENING)

GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64)


SWITCH TYPE: AC OR DC

PGO-1500-D20 - 5019 - EP1F-EP1R-AC

BTM No. 017551 OPTIONS

CLAMP FORCE (lbs) = 4 X LINE PRESSURE (P.S.I.) 
LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)

See pg. 65 For Proximity Switches

Note: For special proximity sensing or alterations, please call BTM Corporation for a quote.

**OPTIONS**

*For prox. ready locations, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R, PR5R

The omni head locks into position when the clamp mounting screws are tightened.