Grippers



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LOCKING GRIPPERS



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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 remained 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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PG-38 Locking Grippers Models.....

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PG-45 Locking Grippers Models.....

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PG-45A 45mm Bore Double Opening Pad Arms......



PG38 & PG45 Accessories

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LOCKING GRIPPERS



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.

pressure is lost.	P	age
	PG-38 Mini Locking Grippers Models Gripper Mounts PG-38MLG-S 38mm Bore Single Opening Pad Arms PG-38MLG-D 38mm Bore Double Opening Pad Arms PG-38MLG-SF 38mm Bore Single Opening Flange Arms PG-38MLG-DF 38mm Bore Double Opening Flange Arms	36 37 38 39 40
	PG-38 Mini Locking Gripper Accessories	

Position Sensors.....

PG-38MLG Components.....

Gripper Pads.....

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 environments.



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TOGGLE GRIPPERS



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 cylindicator style proximity switch.

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PG 1500 S-45 1.5" Bore Single Opening 45°	53
PG 1500 D-210 1.5" Bore Double Opening 210°	54
PG 1500 S-105 1.5" Bore Single Opening 105°	55
PG 1500 V-65/L-1 1.5" Bore 65° + 1" Linear	56
PG 2500 V-65/L-1.67 . 2.5" Bore 65° + 1.67" Linear	57
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Heavy Duty Gripper Accessories	
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2500 Series Gripper Pads	
Proximity Switches for 100, 1500, & 2500 Series Grippers	
Proximity Switch Ordering Options	
- · · · · · · · · · · · · · · · · · · ·	

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 proxready option.



Omni-Head Grippers	
PGO 100 S-20 1" Bore Single Opening 20°	68
PGO 100 D-40 1" Bore Double Opening 40°	69
PGO 1500 S-20 1.5" Bore Single Opening 20°	70
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PG-38 Grippers





STANDARD PADS



CUSTOM PADS AVAILABLE



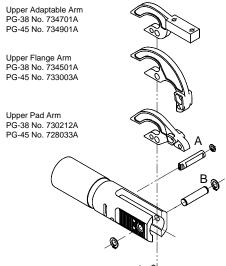


PG-38 & PG-45 Locking Grippers

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.



Lower Opening Pad Arm PG-38 No. 730302A PG-45 No. 728102A

Lower Fixed Pad Arm PG-38 No. 730213A PG-45 No. 728034A

Lower Opening Single Chisel Arm PG-38 No. 730501A PG-45 No. 728301A

Lower Fixed Single Chisel Arm PG-38 No. 730401A PG-45 No. 728201A

Lower Opening Double Chisel Arm PG-38 No. 730701A PG-45 No. 728501A

Lower Fixed Double Chisel Arm PG-38 No. 730601A PG-45 No. 728401A

Lower Opening Flange Arm PG-38 No. 734601A PG-45 No. 733102A

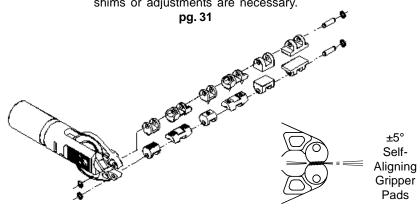
Lower Fixed Flange Arm PG-38 No. 734502A PG-45 No. 733004A

Lower Opening Adaptable Arm PG-38 No. 734801A PG-45 No. 735001A

Lower Fixed Adaptable Arm PG-38 No. 734702A PG-45 No. 734902A

Interchangeable Gripper Pads

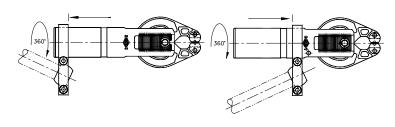
Pads are common between 38 & 45 models. The pads rotate ±5° to "find" the part. No shims or adjustments are necessary.



Flexible Mounting

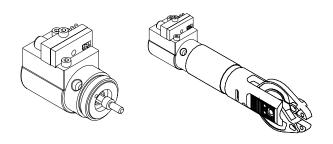
The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position. Patent No 5,647,625.

pg. 32



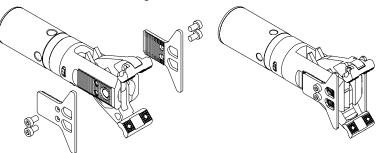
Proximity Switches

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.6

PG-38 Locking Grippers





Locking Grip

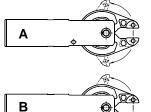
Roller finds detent on the cam surface to hold the part if air pressure is lost.

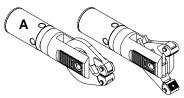
Adjustable Opening

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

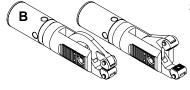


ARM STYLES

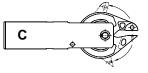


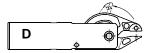


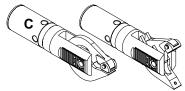
Double Opening Pad Arms 30°, 45° or 75° opening per arm **PG-38 A** pg. 8



Single Opening Fixed Pad Arm 30°, 45° or 75° opening PG-38 B pg. 9



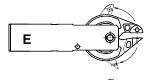




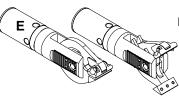
Double Opening Single Chisel Arm 30°, 45° or 75° opening per arm **PG-38 C** pg. 10



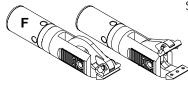
Single Opening Fixed
Single Chisel Arm
30°, 45° or 75°
opening
PG-38 D
pg. 11



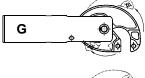


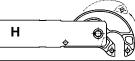


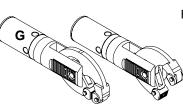
Double Opening
Double Chisel Arm
30°, 45° or 75°
opening per arm
PG-38 E
pg. 12



Single Opening Fixed
Double Chisel Arm
30°, 45° or 75°
opening
PG-38 F
pg. 13

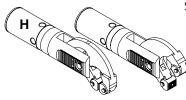




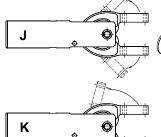


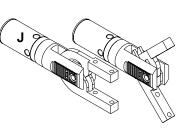
Double Opening Flange Pad Arms 30°, 45° or 75° upper arm opening 16°, 22° or 45° lower arm opening

PG-38 G pg. 14

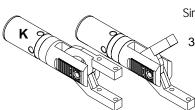


Single Opening Fixed Flange Pad Arms 30°, 45° or 75° opening PG-38 H pg. 15





Double Opening Adaptable Arm 30° or 45° opening per arm **PG-38 J** pg. 16

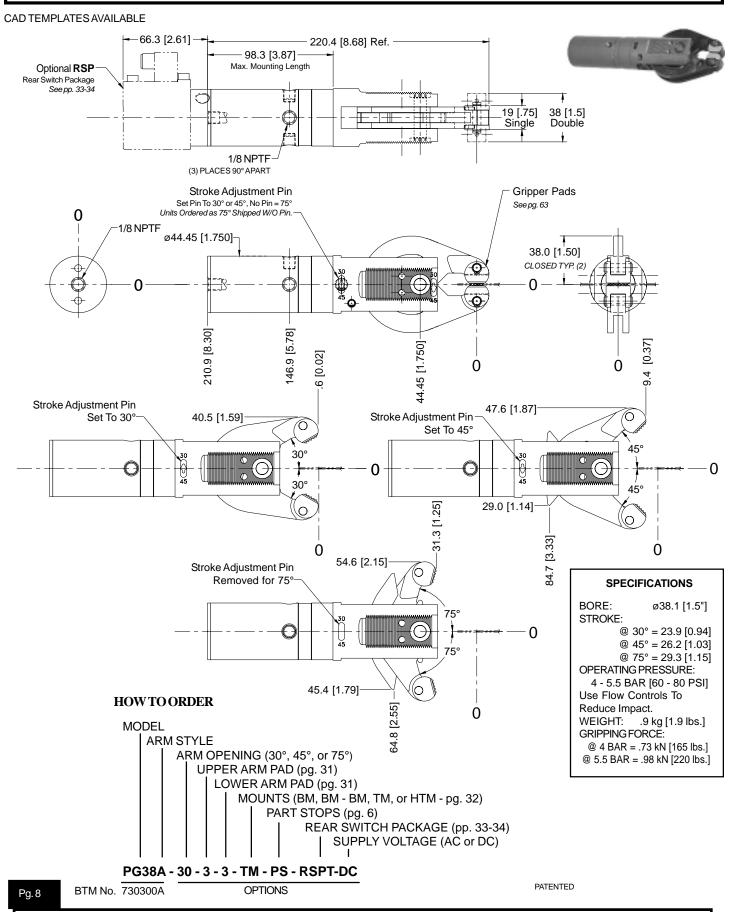


Single Opening Fixed Adaptable Arm 30°, 45° or 75° opening PG-38 K pg. 17



PG-38A ~ Double Opening ~ Pad Arms

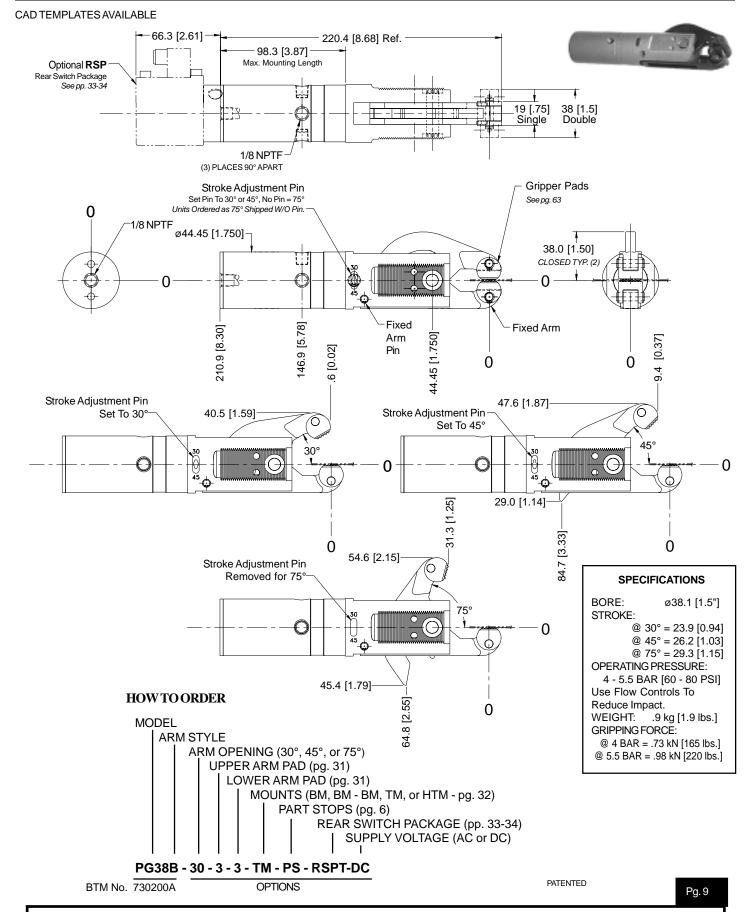
BTM No. 730300A



PG-38B ~ Single Opening ~ Pad Arms

BTM No. 730200A

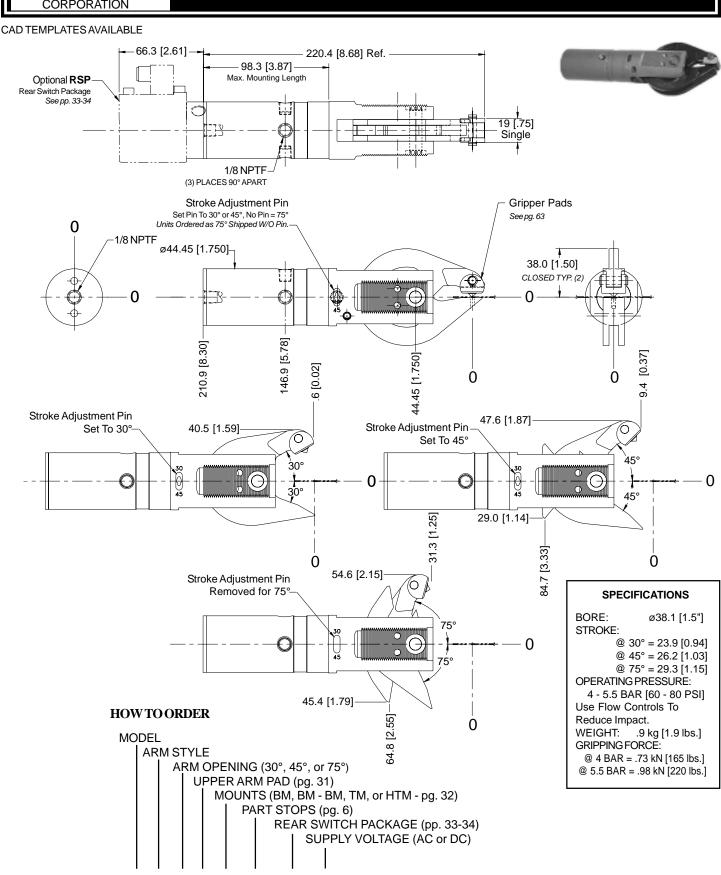






PG-38C ~ Double Opening ~ Single Chisel Arm

BTM No. 730500A



PATENTED

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

OPTIONS

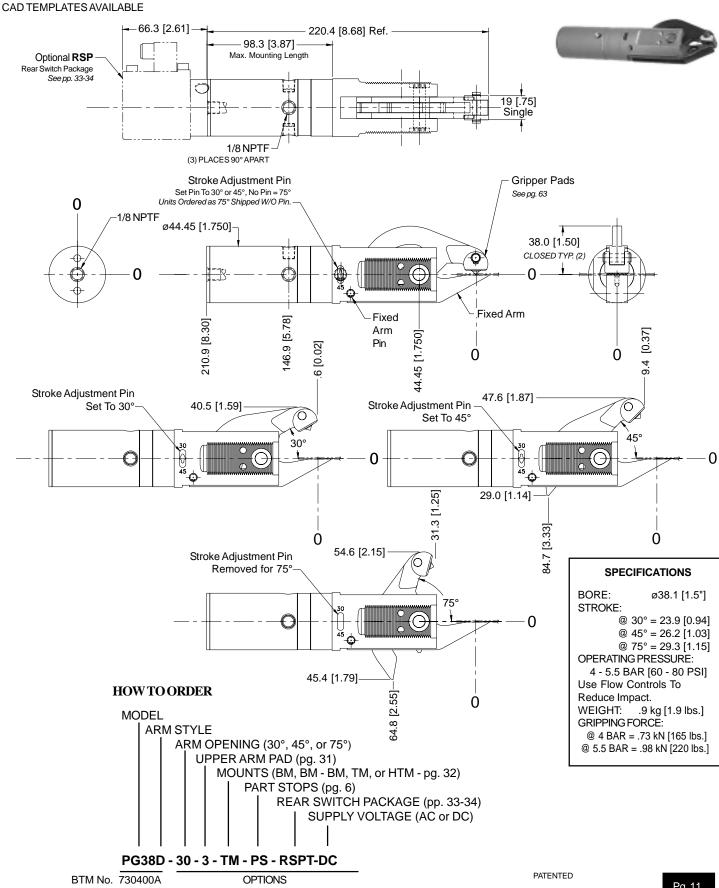
BTM No. 730500A

Pg. 10

PG-38D ~ Single Opening ~ Single Chisel Arm

BTM No. 730400A

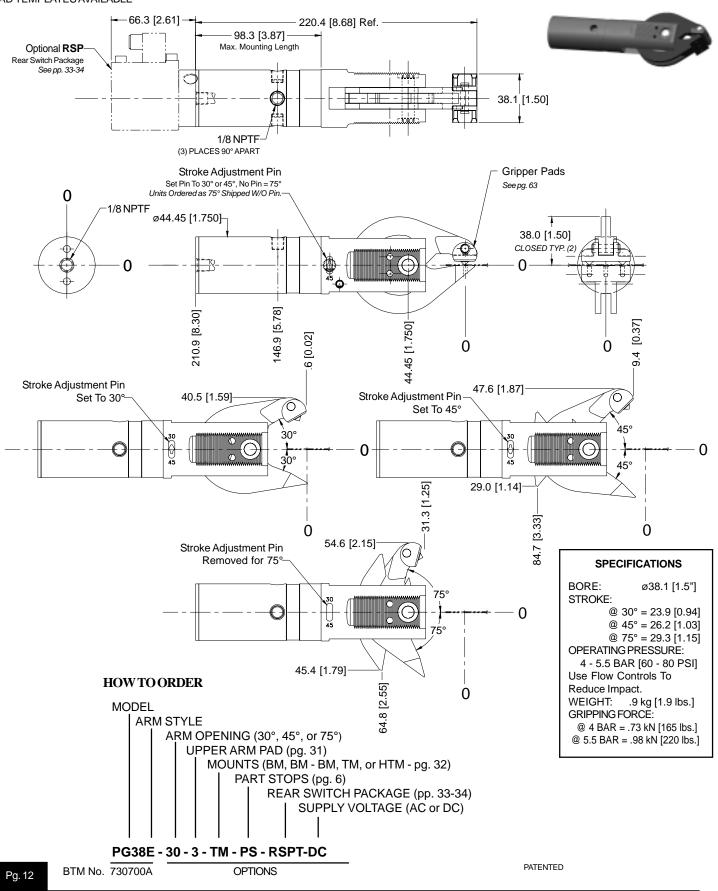






PG-38E ~ Double Opening ~ Double Chisel Arm PG-38E BTM No. 730700A

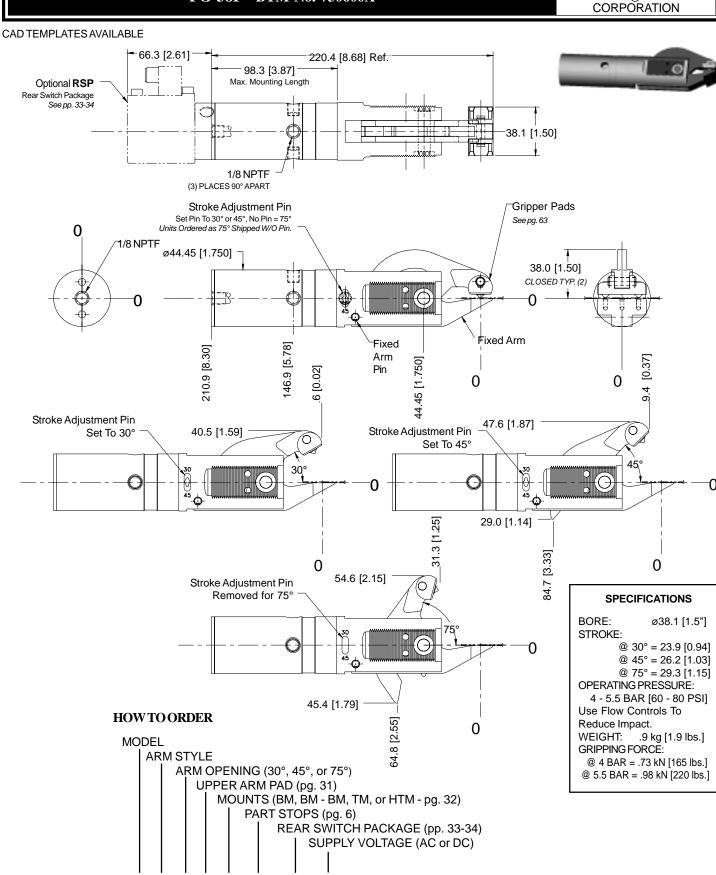
CAD TEMPLATES AVAILABLE



PG-38F ~ Single Opening ~ Double Chisel Arm

PG-38F BTM No. 730600A





PATENTED

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

OPTIONS

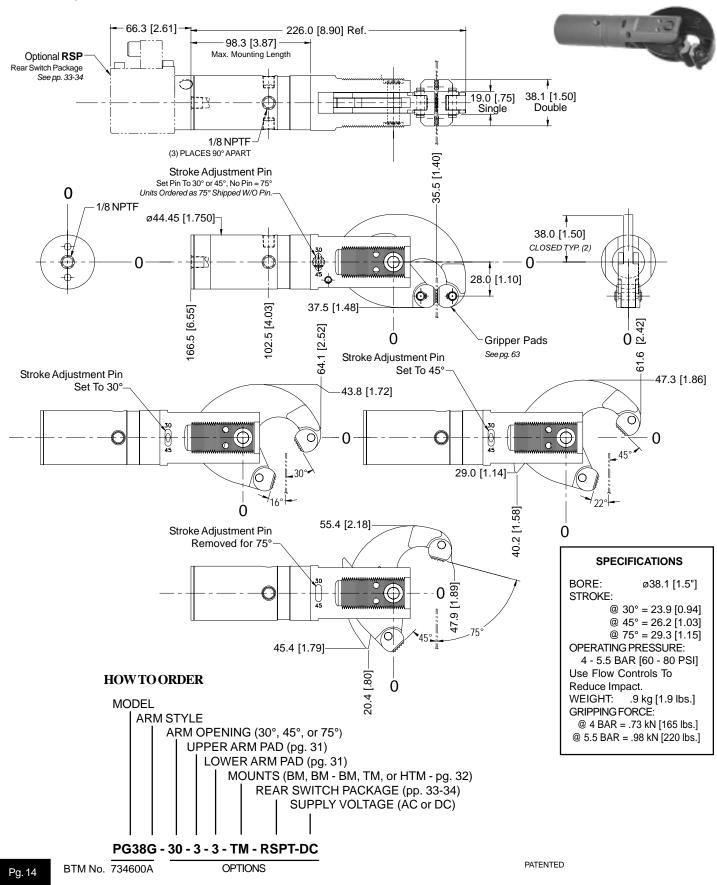
BTM No. 730600A



PG-38G ~ Double Opening ~ Flange Pad Arm

PG-38G BTM No. 734600A

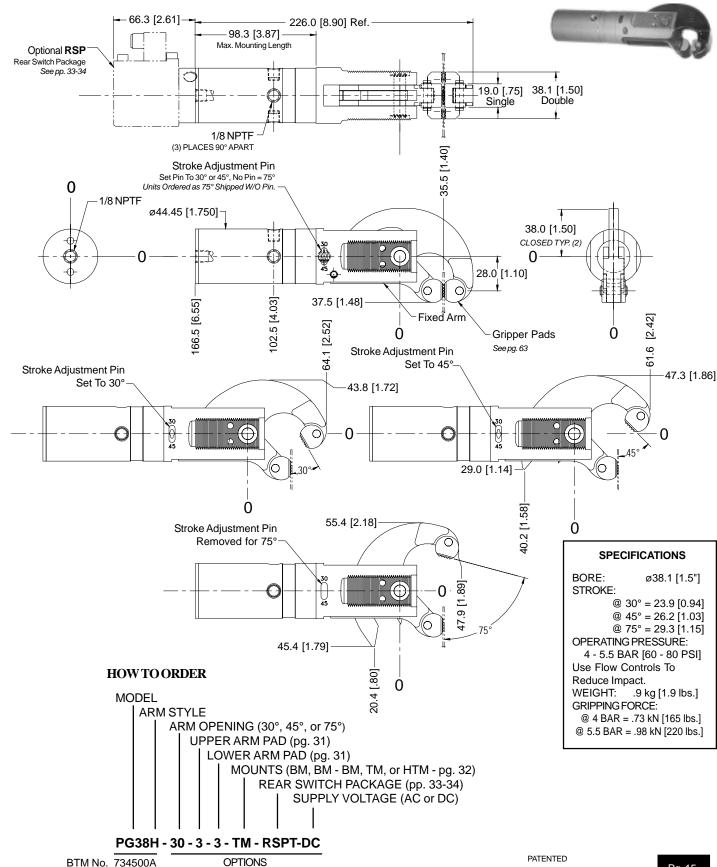
CAD TEMPLATES AVAILABLE



PG-38H ~ Single Opening ~ Flange Pad Arms PG-38H BTM No. 734500A



CAD TEMPLATES AVAILABLE

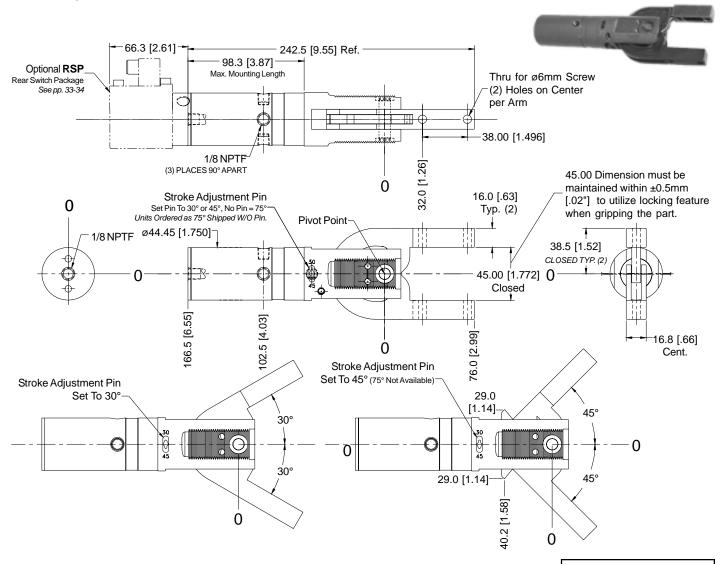




PG-38J ~ Double Opening ~ Adaptable Arm

PG-38J BTM No. 734800A





75° Opening Gripper Not Available

REAR SWITCH PACKAGE (pp. 33-34)

SUPPLY VOLTAGE (AC or DC)

SPECIFICATIONS

BORE: STROKE:

ø38.1 [1.5"]

 $@ 30^{\circ} = 23.9 [0.94]$

 $@45^{\circ} = 26.2[1.03]$

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

Use Flow Controls To Reduce Impact.

WEIGHT:

.9 kg [1.9 lbs.]

GRIPPING FORCE (lbs.) =

4.5 X Line Pressure (PSI) Length (In.) From Pivot Point To

Center Of Gripping Contact

7300 X Line Pressure (Bars) Length (mm) From Pivot Point To

Center Of Gripping Contact

GRIPPING FORCE (N) =

BTM No. 734800A

HOW TO ORDER

ARM STYLE

ARM OPENING (30° or 45°)

OPTIONS

PG38J - 30 - TM - PS - RSPT-DC

PART STOPS (pg. 6)

MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)

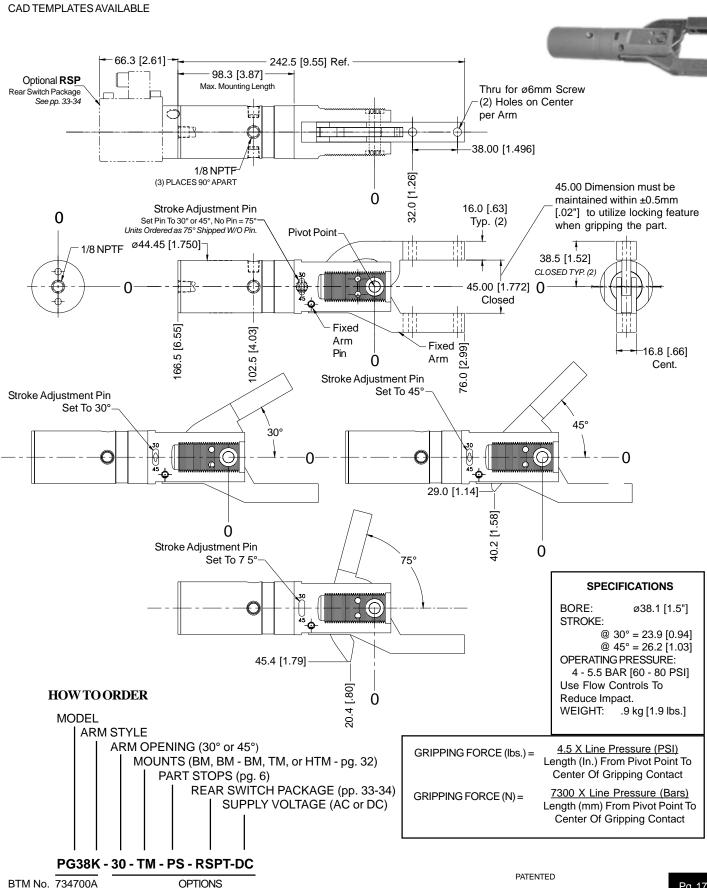
MODEL

PATENTED

Pg. 16

PG-38K ~ Single Opening ~ Adaptable Arms PG-38K BTM No. 734700A





PG-45 Grippers





STANDARD PADS



CUSTOM PADS AVAILABLE



PG-45 Locking Grippers





Locking Grip

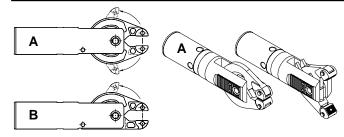
Roller finds detent on the cam surface to hold the part if air pressure is lost.

Adjustable Opening

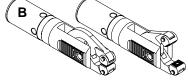
A single pin adjusts the arm opening to 30° or 45°, remove the pin for 75° opening.



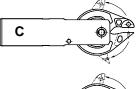
MODELS

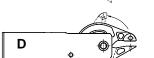


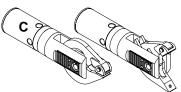
Double Opening Pad Arms 30°, 45° or 75° opening per arm **PG-45 A** pg. 20



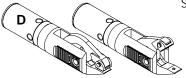
Single Opening Fixed Pad Arm 30°, 45° or 75° opening PG-45 B pg. 21



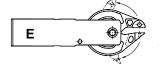


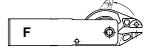


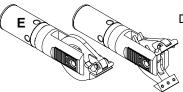
Double Opening Single Chisel Arm 30°, 45° or 75° opening per arm **PG-45 C** pg. 22



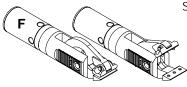
Single Opening Fixed
Single Chisel Arm
30°, 45° or 75°
opening
PG-45 D
pg. 23



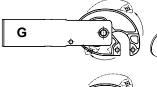


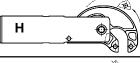


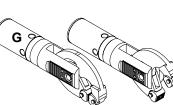
Double Opening
Double Chisel Arm
30°, 45° or 75°
opening per arm
PG-45 E
pg. 24



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

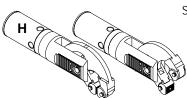




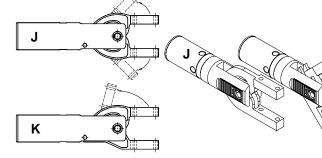


Double Opening Flange Pad Arms 30°, 45° or 75° upper arm opening 16°, 22° or 45° lower arm opening

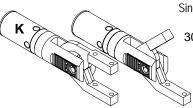
PG-45 G pg. 26



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



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



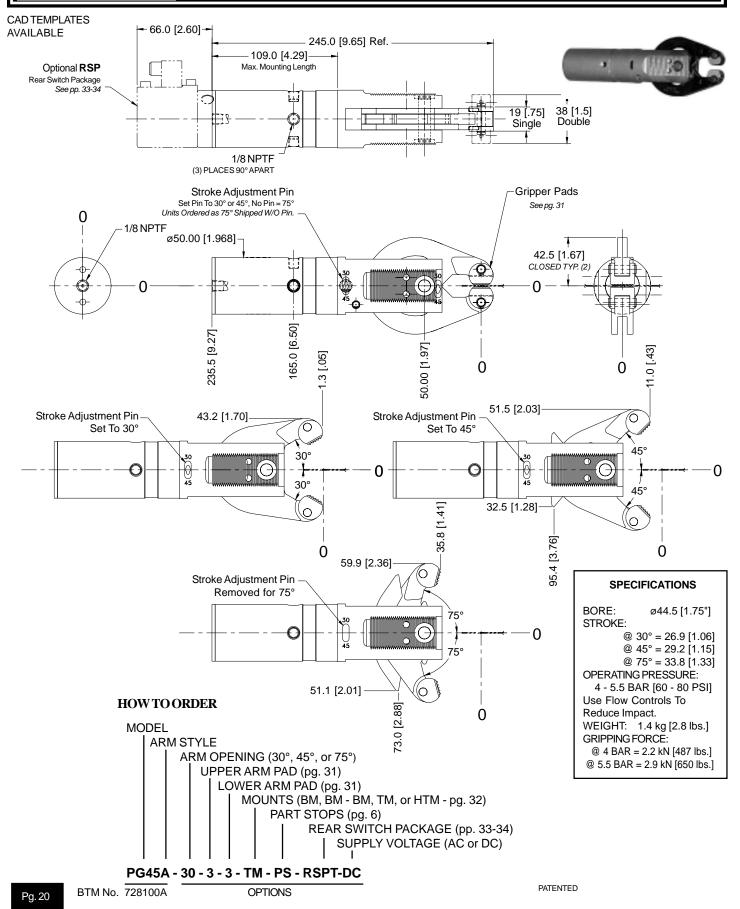
Single Opening Fixed Adaptable Arm 30°, 45° or 75° opening **PG-45 K** pg. 29

Pg. 19



PG-45A ~ Double Opening ~ Pad Arms

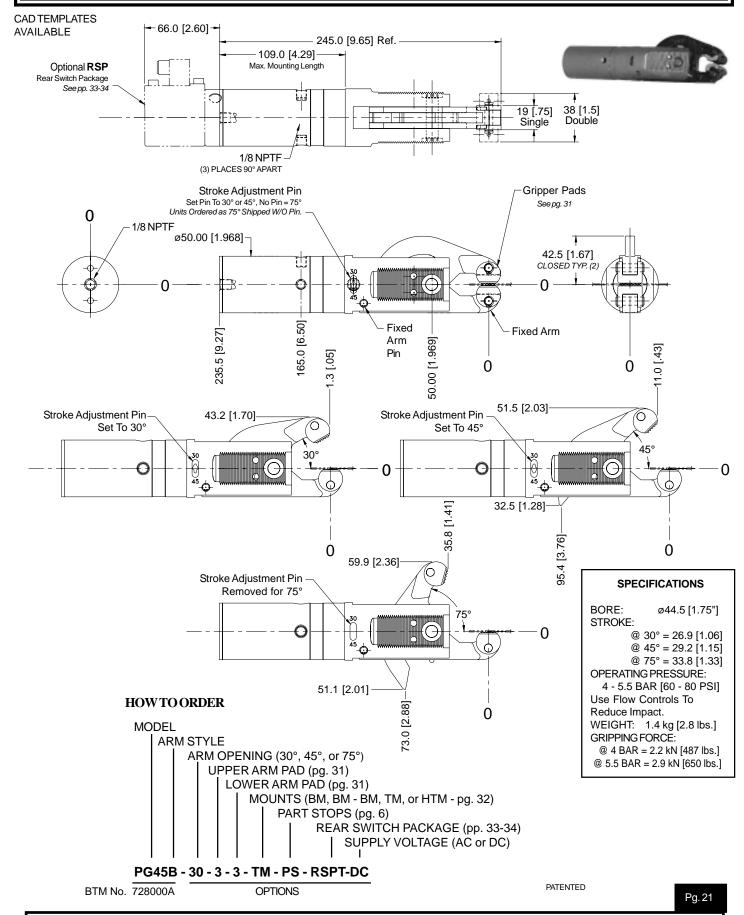
PG-45A BTM No. 728100A



PG-45B ~ Single Opening ~ Pad Arms

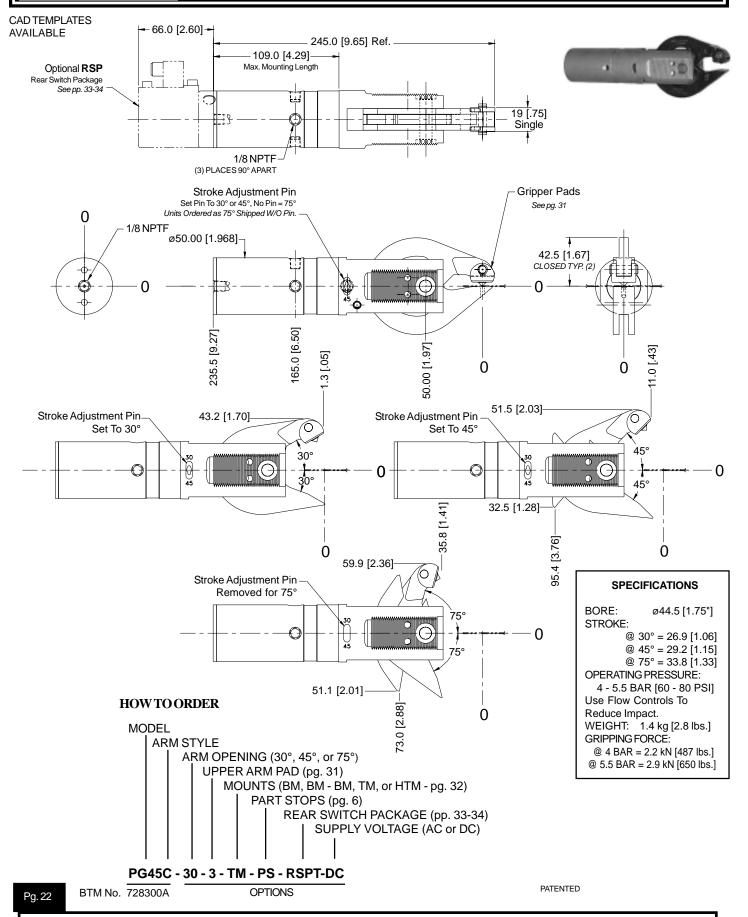
PG-45B BTM No. 728000A





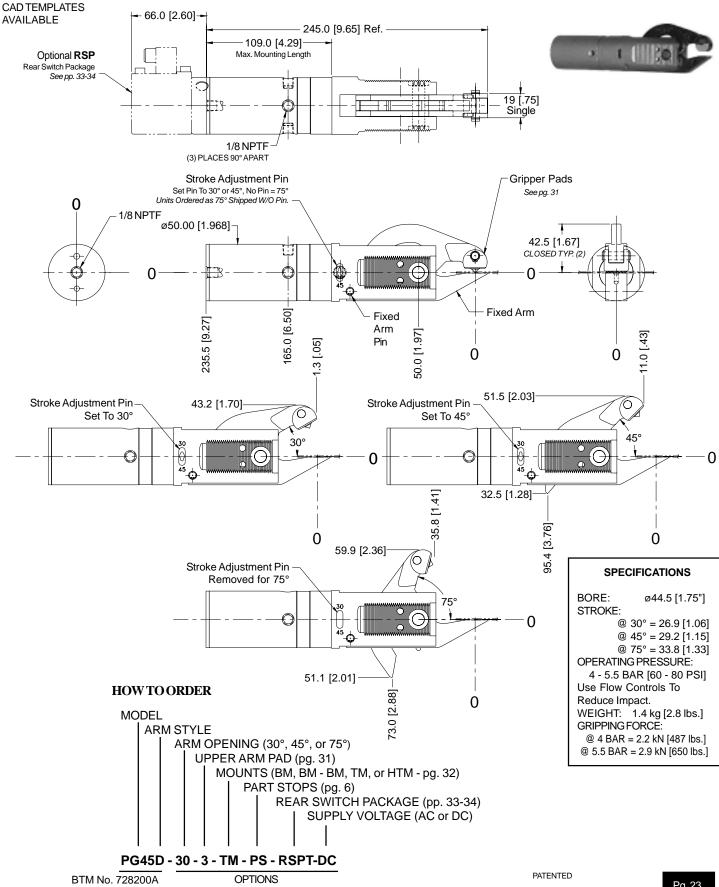


PG-45C ~ Double Opening ~ Single Chisel Arm PG-45C BTM No. 728300A



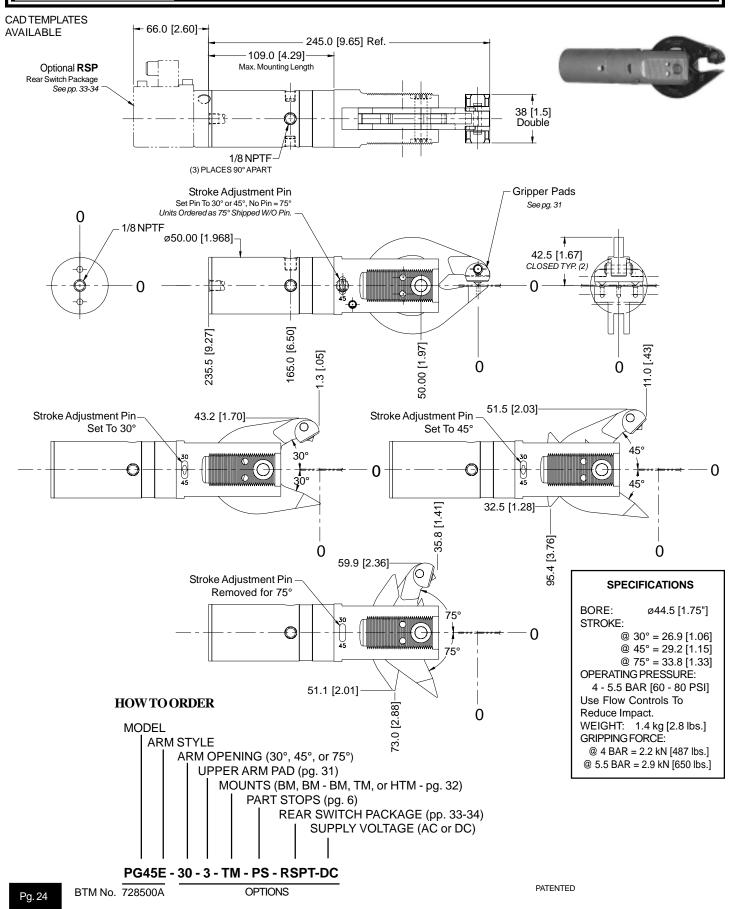
PG-45D ~ Single Opening ~ Single Chisel Arm PG-45D BTM No. 728200A







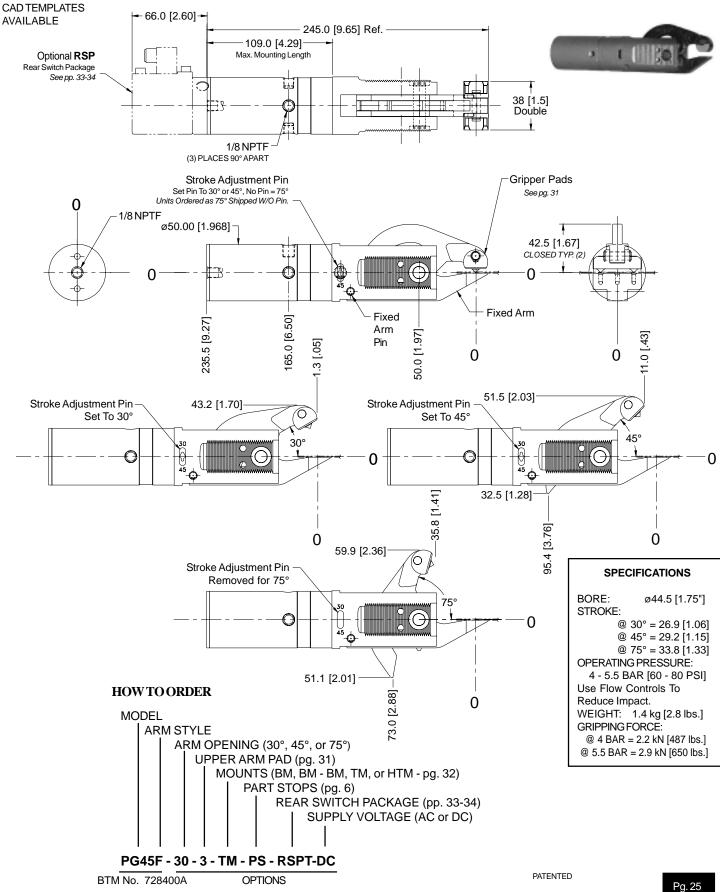
PG-45E ~ Double Opening ~ Double Chisel Arm PG-45E BTM No. 728500A



PG-45F ~ Single Opening ~ Double Chisel Arm

PG-45F BTM No. 728400A

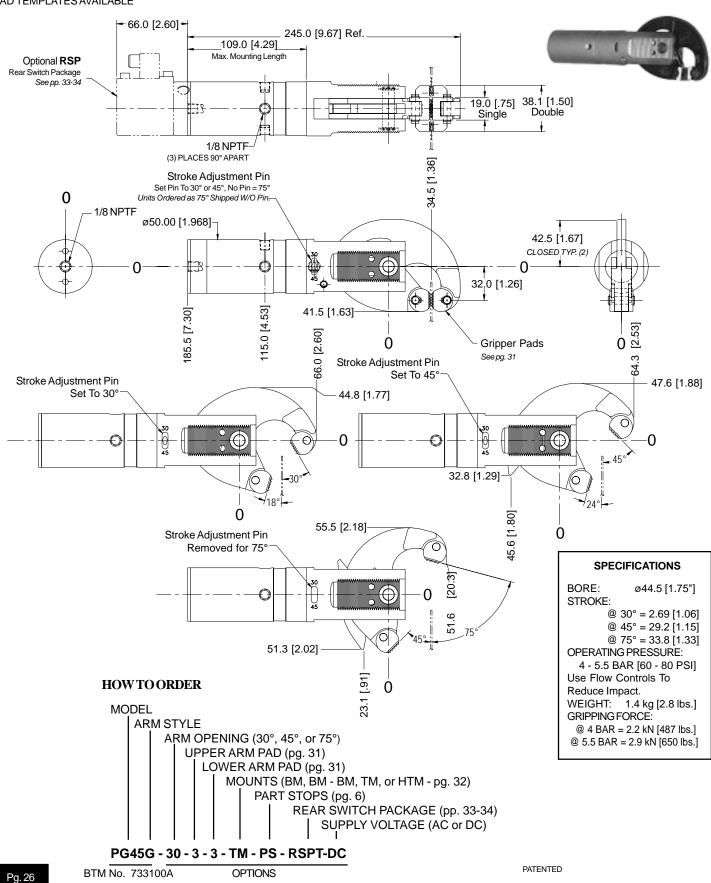






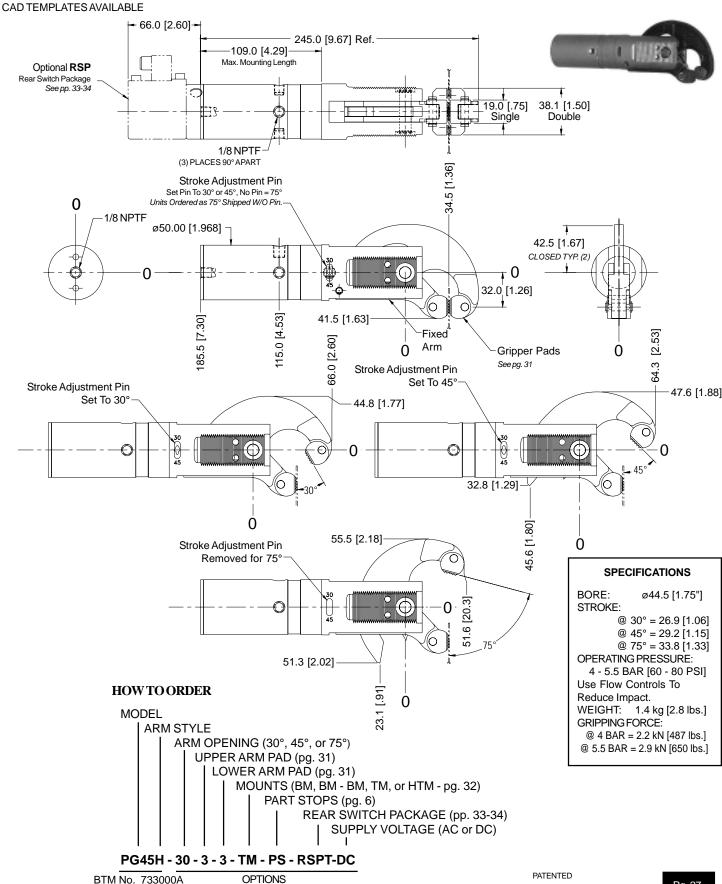
PG-45G ~ Double Opening ~ Flange Pad Arms **PG-45G** BTM No. 733100A

CAD TEMPLATES AVAILABLE



PG-45H ~ Single Opening ~ Flange Pad Arms PG-45H BTM No. 733000A



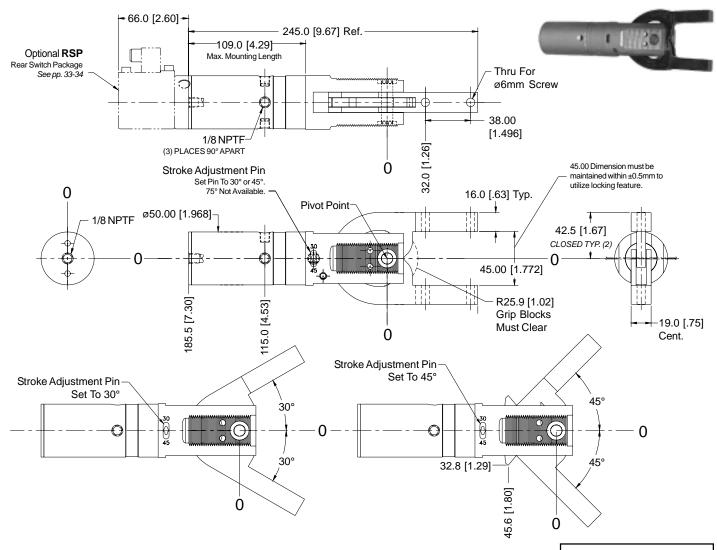




PG-45J ~ Double Opening ~ Adaptable Arms

PG-45J BTM No. 735000A

CAD TEMPLATES AVAILABLE



75° Opening Gripper Not Available

MOUNTS (BM, BM - BM, TM, or HTM - pg. 32)

REAR SWITCH PACKAGE (pp. 33-34) SUPPLY VOLTAGE (AC or DC)

SPECIFICATIONS

BORE: ø44.5 [1.75"]

STROKE:

 $@ 30^{\circ} = 26.9 [1.06]$

 $@45^{\circ} = 29.2[1.15]$ **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

PG45J - 30 - TM - PS - RSPT-DC

ARM OPENING (30° or 45°)

PART STOPS (pg. 6)

BTM No. 735000A **OPTIONS**

HOW TO ORDER

ARM STYLE

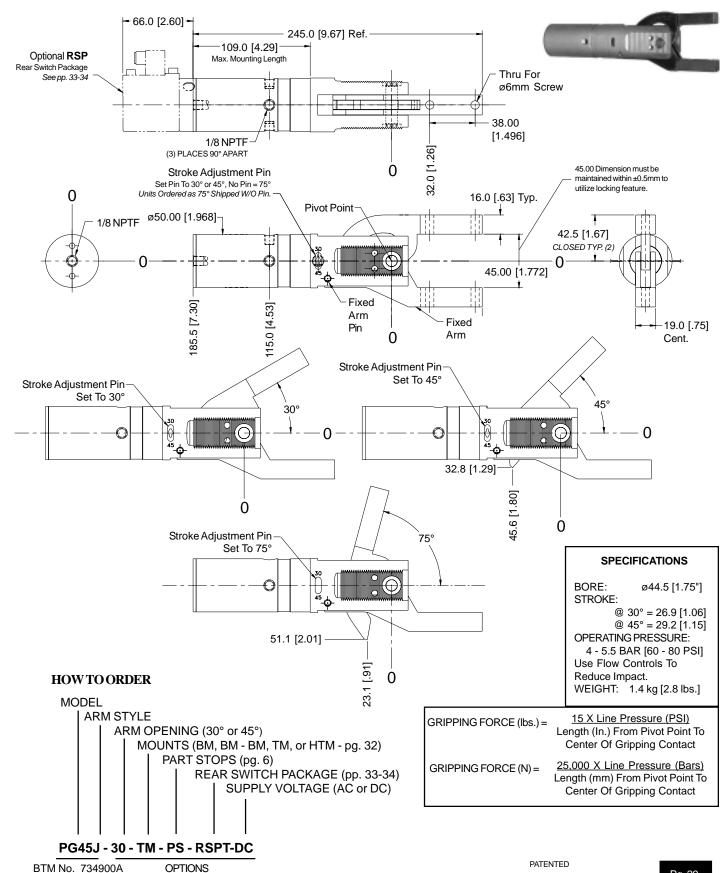
MODEL

PATENTED

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

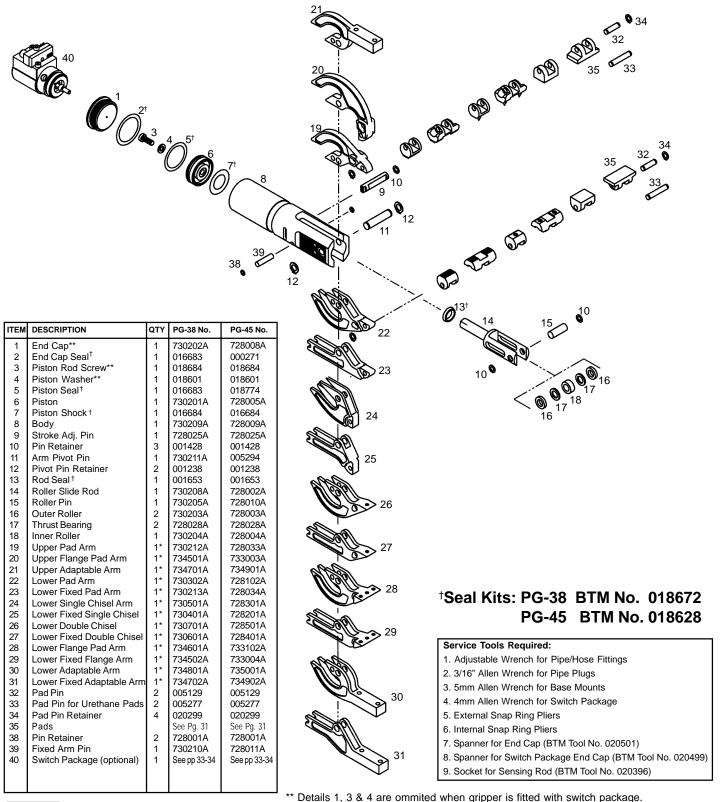


CAD TEMPLATES AVAILABLE





PG-38 & PG-45 Components



Pg. 30

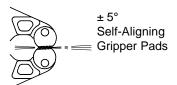
^{* 4} Harrar 9.4 Lawren Arranga arrangia

^{* 1} Upper & 1 Lower Arm per unit.

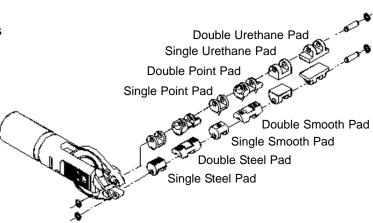
PG-38 & PG-45 Accessories



Interchangeable Gripper Pads Fits both PG 38 & PG 45 Models



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



GRIPPER PADS

Single Steel Pads For Material Thickness See Above 1 - No. 728039A [P] 2 - No. 728040A [W] 19 - No. 728056A [Y] Use in pairs or w/ Point Pads









Double Steel Pads

For Material Thickness See Above **3** - No. 728037A [P] 4 - No. 728038A [W] 20 - No. 728055A [Y] Use in pairs or w/ Point Pads



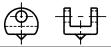


Double Urethane Pads 10/60 - Soft ~ Yellow No. 728000M 10/90 - Hard ~ Orange No. 728000K Use in pairs



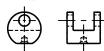
Single Point Pads

For Material Thickness See Above 5 - No. 728043A [P] 6 - No. 728044A [W] Use w/ Steel or Smooth Pads or Chise



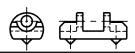
Single Smooth Pads

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



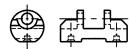
Double Point Pads

For Material Thickness See Above 7 - No. 728041A [P] 8 - No. 728042A [W] Use w/ Steel or Smooth Pads or Chisel



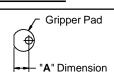
Double Smooth Pads

For Material Thickness See Above 13 - No. 728049A [P] 14 - No. 728050A [W] 22 - No. 728058A [Y]

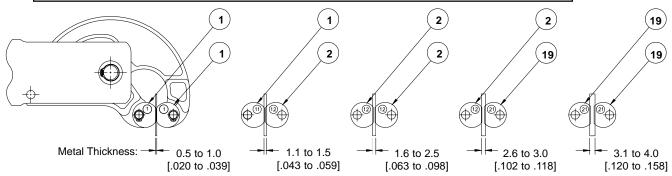


Selection of Gripper Pad Combinations for Metal Thickness





NOTE: URETHANE PADS WORK FOR ALL METAL THICKNESS COMBINA-**TIONS**

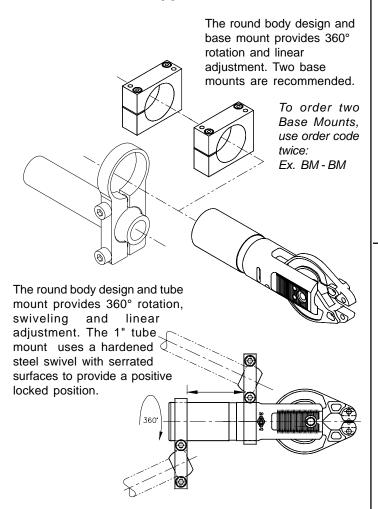


Gripper Pad Color Codina: [P]=Pink [W]=White [Y]=Yellow

Metal Thickness	Single Steel	Double Steel	Single Point	Double Point	Single Smooth	Double Smooth	Color
0.5 to 1.0 [.020 to .039]	1+1	3+3	5+11	7+13	11+11	13+13	Pink
1.1 to 1.5 [.043 to .059]	1+2	3+4	5+12	7+14	11+12	13+14	Pink+White
1.6 to 2.5 [.063 to .098]	2+2	4+4	6+12	8+14	12+12	14+14	White
2.6 to 3.0 [.102 to .118]	2+19	4+20	6+21	8+22	12+21	14+22	White+Yellow
3.1 to 4.0 [.120 to .158]	19+19	20+20			21+21	22+22	Yellow

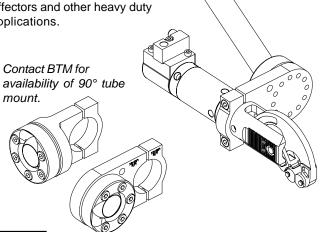
PG-38 & PG-45 Accessories

Gripper Mounts



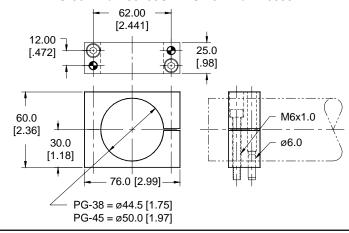
The 1 1/4" tube mount is available in 90° and in-line configuratgions. It is ideal for use with Robot End Arm Effectors and other heavy duty applications.

Pg. 32

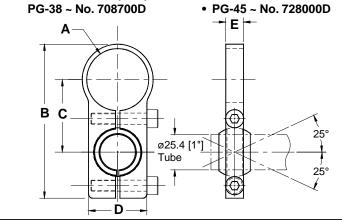


(BM) Base Mount

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

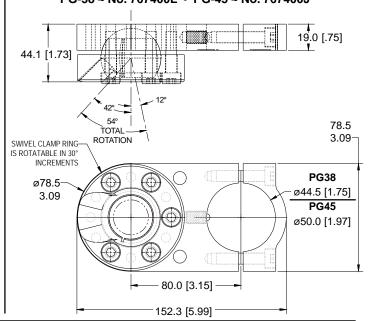


(TM) Tube Mount



	Α	В	С	D	E
PG-38	ø44.5 [1.75]	110.4 [4.35]	52.0 [2.05]	41.7 [1.64]	12.7 [.50]
PG-45	ø50.0 [1.97]	116.2 [4.57]	55.0 [2.17]	41.7 [1.64]	12.7 [.50]

(HTM) 1 1/4" Tube Mount PG-38 ~ No. 767400L • PG-45 ~ No. 767400J

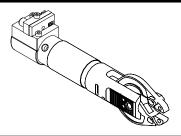


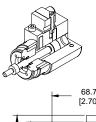
PG-38 & PG-45 Accessories



Position Sensors

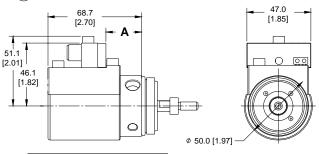
Single Connector Status Controller AC or DC Proximity Switch Senses Open & Closed Positions





RSPT-DC Rear Switch Package - Turck DC (Ni2-Q6.5-AP6-0.20-FS4.4X3-S304)

for PG-38 ~ No. 753700B for PG-45 ~ No. 753600B



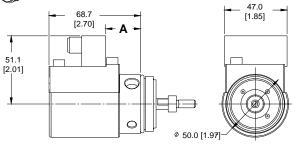
	Α
PG-38 w/DC	
PG-45 w/DC	29.0 [1.14]



RSPT-AC

Rear Switch Package - Turck AC (Ni2-Q6.5-ADZ32-0.16-FB5.4X2-S304)

for PG-38 ~ No. 753700A for PG-45 ~ No. 753600A



	Α
PG-38 w/AC	26.2 [1.03]
PG-45 w/AC	29.0 [1.14]

Components

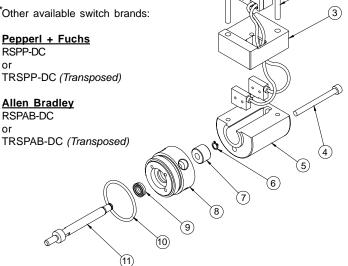
ITEM	DESCRIPTION	QTY	PG-38	PG-45
1	DC Status Controller*	1	018426	018426
	AC Status Controller		019328	019328
2	Screw	2	016452	016452
3	Sensor Block	1	753701A	753601A
4	Screw	1	018495	018495
5	Sensor Can	1	744303A	744303A
6	Retainer	1	005241	005241
7	Prox Target	1	739501A	739501A
8	End Cap	1	744401A	744301A
9	Seal	1	020293	020293
10	O Ring	1	016643	000271
11	Sensing Rod	1	734301A	734201A

*Other available switch brands:

Pepperl + Fuchs RSPP-DC

Allen Bradley RSPAB-DC

TRSPAB-DC (Transposed)



DC ~ Status Controller Two Sensors

Supplied

w/ Switch

(2)

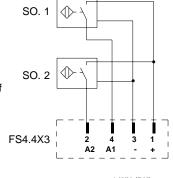
Supply Voltage: 10-30 VDC ≤150mA

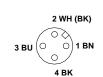
Load Current: Single Connector ~ Conprox®

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

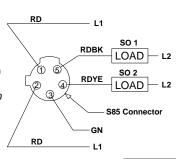
Supply Voltage: 20-250 VAC

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:

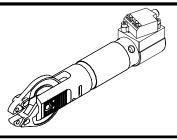
TRSPT-AC



Pg. 33

BIM CORPORATION

PG-38 & PG-45 Accessories



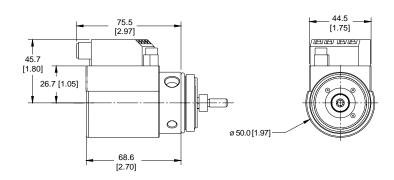
Position Sensors

Single Connector C2000 Cylindicator DC Proximity Switch Senses Open & Closed Positions

RSPN-DC

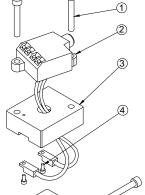
Rear Switch Package - Namco DC EE280-92140

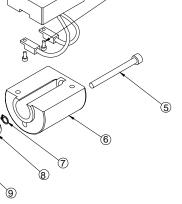
> for PG-38 ~ No. 744400A for PG-45 ~ No. 744300A



Components

ITEM	DESCRIPTION	QTY	PG-38	PG-45
1	Screw	2	018491	018491
2	DC Cylindicator	1	019126	019126
	AC Cylindicator	1	019327	019327
3	Sensor Block	1	744402A	744302A
4	Screw	2	019287	019287
5	Screw	1	018495	018495
6	Sensor Can	1	744303A	744303A
7	Retainer	1	005241	005241
8	Prox Target	1	739501A	739501A
9	End Cap	1	744401A	744301A
10	Seal	1	020293	020293
11	O Ring	1	016643	000271
12	Sensing Rod	1	734301A	734201A



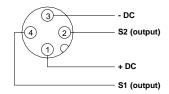


11

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

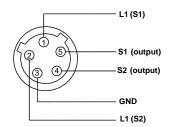


AC ~ Cylindicator

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



Pg. 34

Mini Locking Grippers

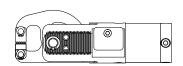


STANDARD PADS

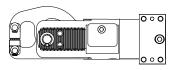
CUSTOM PADS AVAILABLE



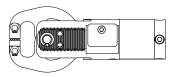
PG-38 Mini Locking Grippers



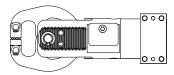
739400A **PG-38MLG-S**Single 65° Opening Arm
pg. 38



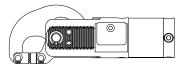
739400R **PG-38MLG-S-FM** (Flange Mount)
Single 65° Opening Arm
pg. 38



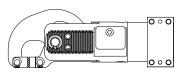
739400E **PG-38MLG-D** Dual 65° Opening Arms pg. 39



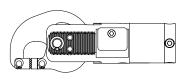
739400S
PG-38MLG-D-FM (Flange Mount)
Dual 65° Opening Arms
pg. 39



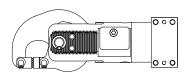
739400F **PG-38MLG-SF**Single 65° Opening Flange Arm
pg. 40



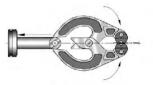
739400T **PG-38MLG-SF-FM** (Flange Mount)
Single 65° Opening Flange Arm
pg. 40



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.

SPECIFICATIONS

BORE: Ø 38.1mm [1.5"] STROKE: 20.5mm [0.81"]

OPERATING PRESSURE: 4 - 5.5 BAR

[60 - 80 PSI]

WEIGHT: .7 kg [1.5 lbs.]

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

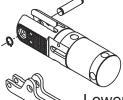
Interchangeable Arm Styles

The arms are retained by a single pin, allowing quick and easy arm changes.



Upper Opening Flange Arm

Upper Opening Arm



Lower Fixed Arm



Lower Opening Arm



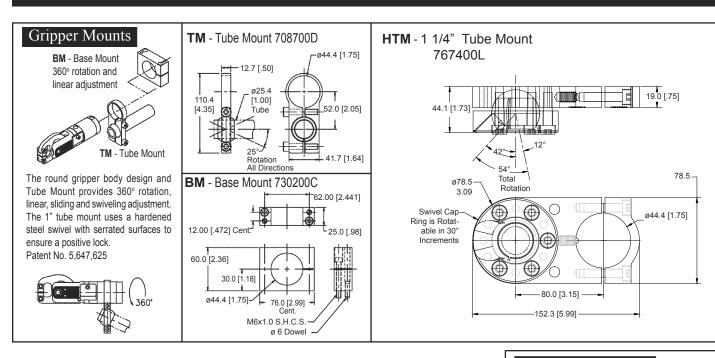
Lower Fixed Flange Arm



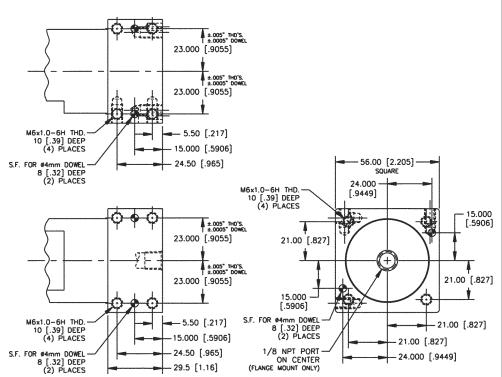
Lower Opening Flange Arm

PG-38MLG Flange Mount Dimensions





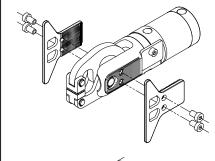
FM - Flange Mount Dimensions



Part Stops

Part Stops (PS)

Hardened steel stops position the part and protect the gripper body from damage.



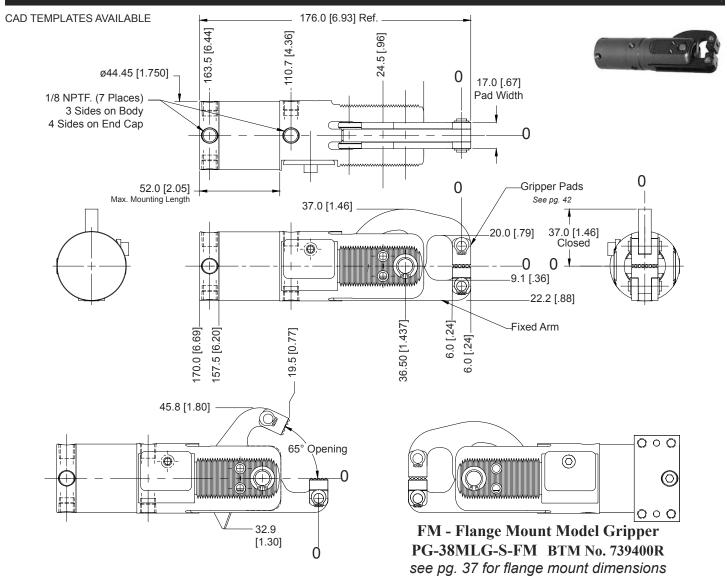


Custom part stops can be manufactured to meet your specific application. Contact BTM for details.

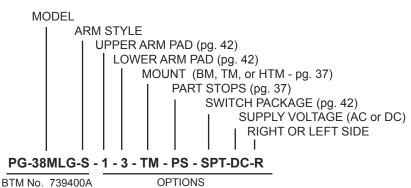


PG-38MLG ~ Single Opening

PG-38MLG-S BTM No. 739400A







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.]

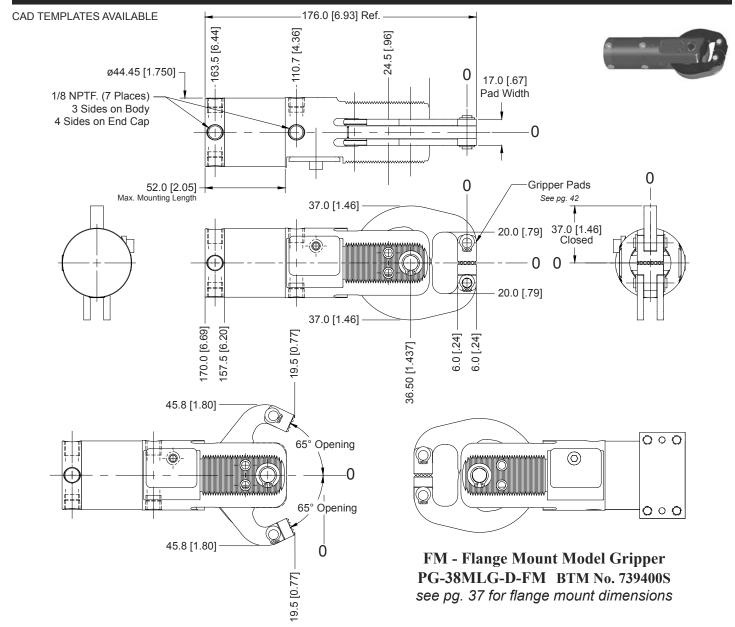
Pg. 38

OPTIONS

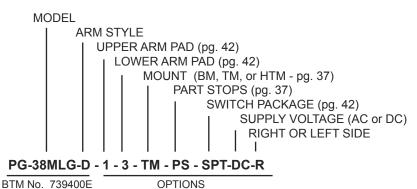
PG-38MLG ~ Double Opening

PG-38MLG-D BTM No. 739400E





HOW TO ORDER



SPECIFICATIONS

BORE: Ø 38.1 [1.5"] STROKE: 20.5 [0.81"]

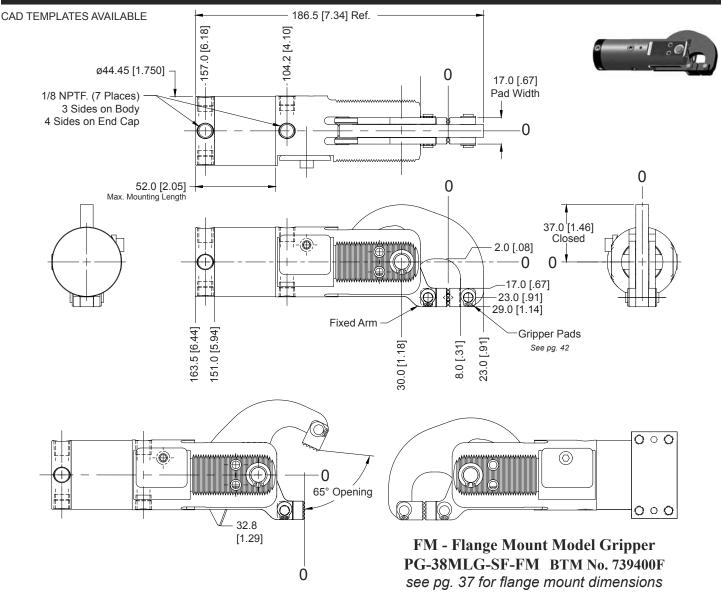
OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI] Use Flow Controls To Reduce Impact.

WEIGHT: .7 kg [1.5 lbs.] GRIPPING FORCE:

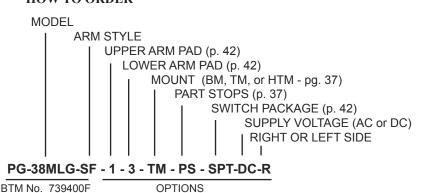
@ 4 BAR = .7 kN [153 lbs.] @ 5.5 BAR = .9 kN [205 lbs.]



PG-38MLG ~ Single Opening Flange Arms PG-38MLG-SF BTM No. 739400F



HOW TO ORDER



SPECIFICATIONS

BORE: Ø 38.1 [1.5"] STROKE: 20.5 [0.81"]

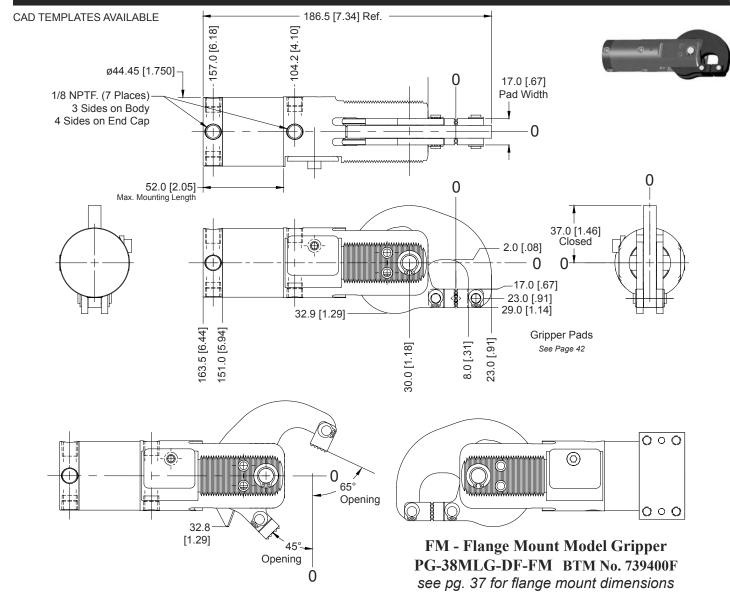
OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI] Use Flow Controls To Reduce Impact.

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

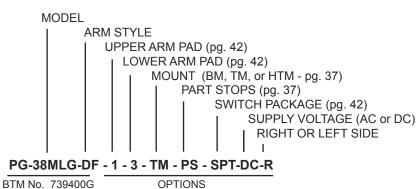
@ 4 BAR = .7 kN [153 lbs.] @ 5.5 BAR = .9 kN [205 lbs.]

PG-38MLG ~ Double Opening Flange Arms PG-38MLG-DF BTM No. 739400G





HOW TO ORDER



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.

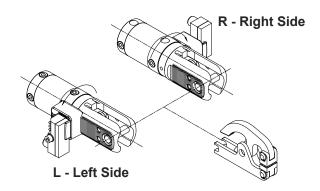
WEIGHT: .7 kg [1.5 lbs.]
GRIPPING FORCE:

@ 4 BAR = .7 kN [153 lbs.] @ 5.5 BAR = .9 kN [205 lbs.]



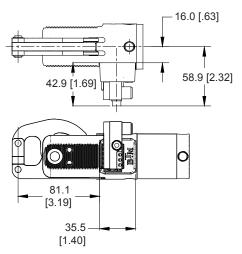
Options for PG-38 Mini Locking Grippers

Switch Packages



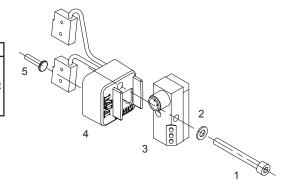
The switch package can be positioned to the left or right hand side of the gripper. This is done by removing the arms, rotating the body and refitting the arms in the opposite position.

SP - BTM No. (see chart)

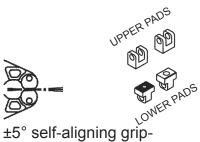


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More switch brands may be available. Contact BTM for details.						

ITEM	DESCRIPTION	QTY	NUMBER
1	M5 x 45mm S.H.C.S.		018493
2	Washer	1	020403
3	Status Controller	1	See chart
4	Prox. Block	1	739403B
5	Prox. Actuator	1	020411



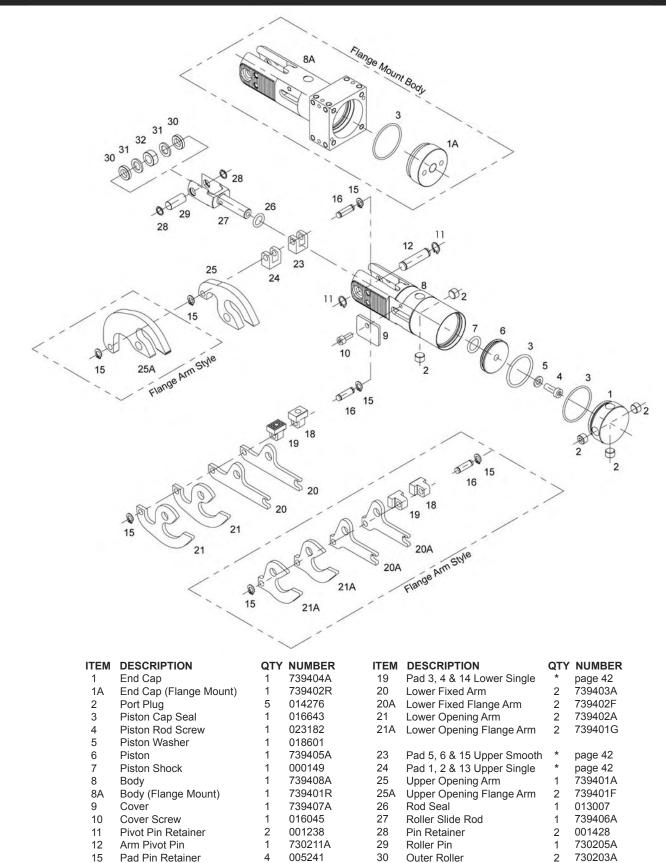
Interchangeable Gripper Pads							
UPPER PADS		Upper Single Pad		Upper Single Smooth Pad			
Material Thickness	Orde	r BTM	Order	BTM			
To Be Gripped	No.	Number	No.	Number			
.5 to 1.0 mm	1	739410A	5	739415A			
1.0 to 1.6 mm	1	739410A	5	739415A			
1.6 to 2.5 mm	2	739411A	6	739416A			
2.6 to 3.0 mm	2	739411A	6	739416A			
3.1 to 4.0 mm	13	739423A	15	739425A			
LOWER PADS		Lower Single Pad		Lower Single Smooth Pad			
Material Thickness	Orde	r BTM	Order	BTM			
To Be Gripped	No.	Number	No.	Number			
.5 to 1.0 mm	3	739412A	7	739417A			
1.0 to 1.6 mm	4	739413A	8	739418A			
1.6 to 2.5 mm	4	739413A	8	739418A			
2.6 to 3.0 mm	14	739424A	16	739426A			
3.1 to 4.0 mm	14	739424A	16	739426A			



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

PG-38MLG Components





31

739409A

page 42

Pin - Pad to Arm

Pad 7, 8 & 16 Lower Smooth

16

18

Thrust Bearing

* Denotes Optional Components

Inner Roller

2

728028A

730204A

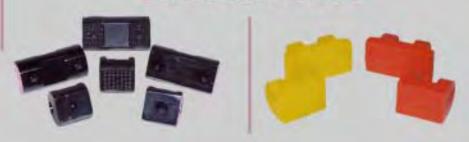
Sealed Heavy Duty Grippers







STANDARD PADS



CUSTOM PADS AVAILABLE

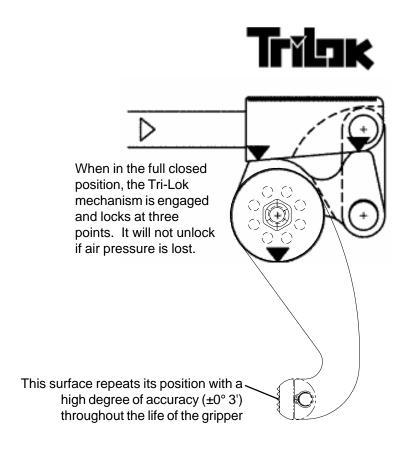
Sealed Heavy Duty Gripper SHDG 52 Series



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 & Simplifed arm change
- Integrated proximity switch package
- Adjustable cushions standard on both advance and retract ends
- Manual Unlock provision for setup

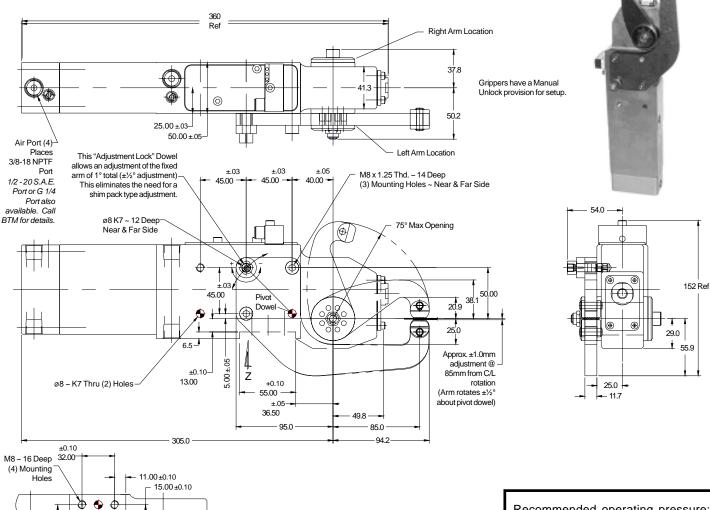






SHDG 52 Sealed Heavy Duty Gripper ~ Single Opening Fixed SHDG52

CAD TEMPLATES AVAILABLE



 $\mathsf{View}\, Z$

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±0.10

63.50

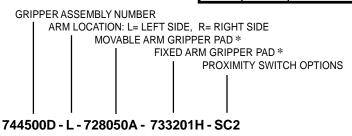
Arm Mount Hub

Φ

ø8 ~ H7 12-Deep (2) Holes

GRIPPER ASSEMBLY NUMBERS								
ARM OPENING	CYLINDER STROKE	SINGLE OPENING FIXED						
30°	25.99	744500A						
45°	33.17	744500B						
60°	40.24	744500C						
75°	47.63	744500D						

HOW TO ORDER



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) = $\frac{16\ 500\ x\ LINE\ PRESSURE\ (Bars)}{16\ 500\ x\ LINE\ PRESSURE\ (Bars)}$

Gripping Force on Center of Gripper Pads (lbs.) = $\frac{10 \times LINE \ PRESSURE \ (P.S.I.)}{}$

Equivalent Bore Size ø52mm [ø2.00 in]

Use flow controls to reduce impact

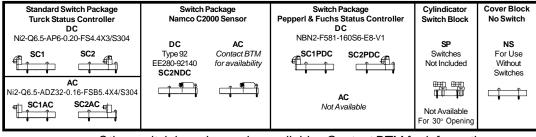


Manufactured by BTM CORPORATION Marysville, Michigan USA PATENTED

*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 SHDG52

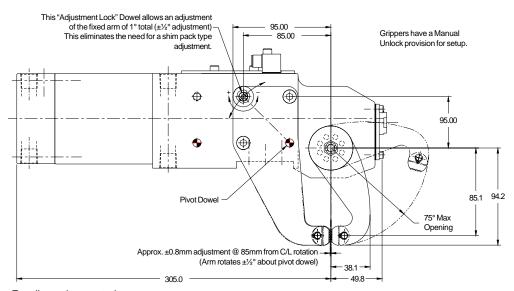




CAD TEMPLATES AVAILABLE



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



11.7 — 25.0

For dimensions not shown on Flange model, see facing page

GRIPPER ASSEMBLY NUMBERS								
ARM OPENING	CYLINDER STROKE	SINGLE OPENING FIXED FLANGE						
30°	25.99	744600A						
45°	33.17	744600B						
60°	40.24	744600C						
75°	47.63	744600D						

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

744600D - L - 728050A - 733201H - SC2

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) = $\frac{16\ 500\ x\ L}{}$

16 500 x LINE PRESSURE (Bars)

Force on Contar

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

Equivalent Bore Size ø52mm [ø2.00 in]

Use flow controls to reduce impact



Manufactured by BTM CORPORATION Marysville, Michigan USA PATENTED

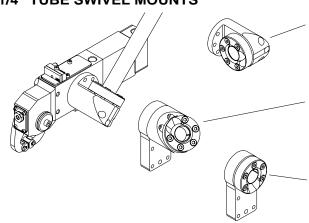
*Pad numbers may also be called out as 1, 2, 3, 4, etc. See pg. 48 for pads.



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

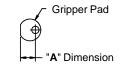
BTM No. 744900E Weight: 1.9 Kg [4 lbs 2 oz]

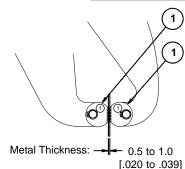
1 1/4 Tube Swivel Mount BTM No. 744900C Weight: 1.3 Kg [2 lbs 9 oz]

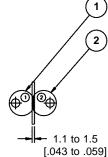
GRIPPER PADS

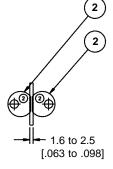


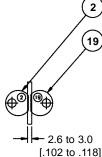
- Single Steel Pad (728039A) ~ "A" = 13.08mm [.515"]
- Single Steel Pad (728040A) ~ "A" = 12.37mm [.487"]
- Single Steel Pad (728056A) ~ "A" = 11.66mm [.459"]

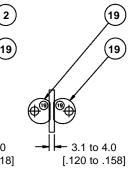












Gripper Pad Color Coding: [P]=Pink [W]=White [Y]=Yellow

NOTE: URETHANE PADS WORK FOR ALL METAL THICKNESS COMBINATIONS

Metal Thickness	Single Steel	Double Steel	Single Point	Double Point	Single Smooth	Double Smooth	Color
0.5 to 1.0 [.020 to .039]	1+1	3+3	5+11	7+13	11+11	13+13	Pink
1.1 to 1.5 [.043 to .059]	1+2	3+4	5+12	7+14	11+12	13+14	Pink+White
1.6 to 2.5 [.063 to .098]	2+2	4+4	6+12	8+14	12+12	14+14	White
2.6 to 3.0 [.102 to .118]	2+19	4+20	6+21	8+22	12+21	14+22	White+Yellow
3.1 to 4.0 [.120 to .158]	19+19	20+20			21+21	22+22	Yellow

Single Steel Pads

For Material Thickness See Above 1 - No. 728039A [P] 2 - No. 728040A [W] 19 - No. 728056A [Y] Use in pairs or w/ Point Pads



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





Double Steel Pads

For Material Thickness See Above 3 - No. 728037A [P] 4 - No. 728038A [W] 20 - No. 728055A [Y] Use in pairs or w/ Point Pads







Double Urethane Pads

10/60 - Soft ~ Yellow

No. 728000M

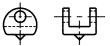
10/90 - Hard ~ Orange

No. 728000K

Use in pairs







Single Point Pads

For Material Thickness See Above

5 - No. 728043A [P]

6 - No. 728044A [W]

Use w/ Steel or Smooth Pads or Chisel









Double Point Pads

For Material Thickness See Above

7 - No. 728041A [P]

8 - No. 728042A [W]

Use w/ Steel or Smooth Pads or Chisel

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]





2500-1500 Series Grippers



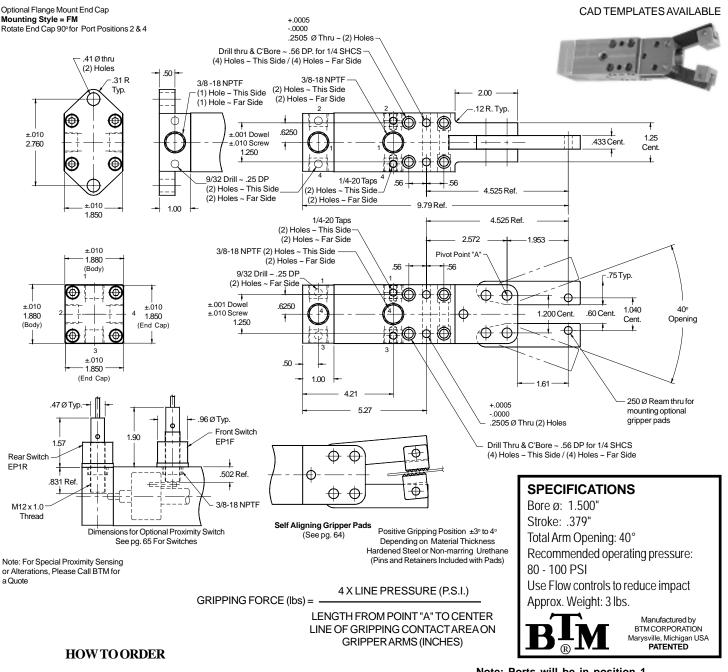
CUSTOM PADS AVAILABLE

2500

1500



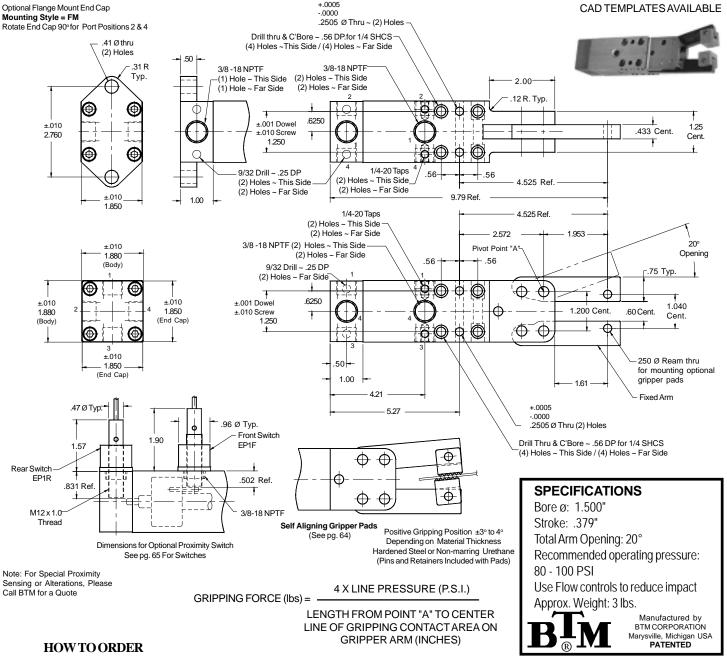
1500 Series Power Gripper PG 1500-D 40



Note: Ports will be in position 1 POWER GRIPPER unless otherwise specified. 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 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F* REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R st SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-1500-D40 - FM - 5272-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R **OPTIONS** Body Mount No. 001661 Spacers and/or adapters may be necessary. Flange Mount No. 003319 See pg. 66 for more information

1500 Series Power Gripper PG 1500-S 20

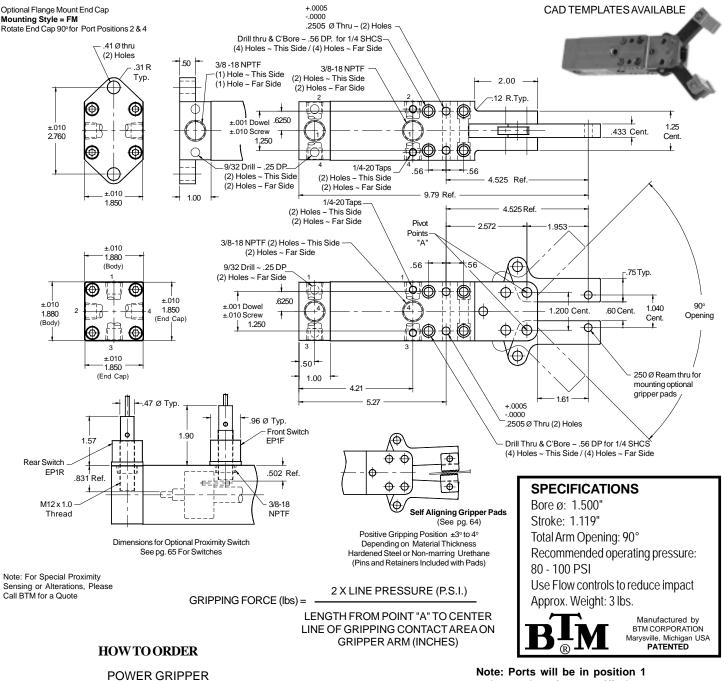




Note: Ports will be in position 1 **POWER GRIPPER** unless otherwise specified. 1500 SERIES: 1.5" BORE ARM OPENING: S20 (SINGLE 20° OPENING) FM [FLANGE MOUNT] or BM [BODY MOUNT] GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273,17490,12742-O, 12742-Y (pg. 64) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F * REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R* SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-1500-S20 - FM - 5272-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R **OPTIONS** Body Mount No. 002220 Spacers and/or adapters may be necessary. Flange Mount No. 003320 See pg. 66 for more information



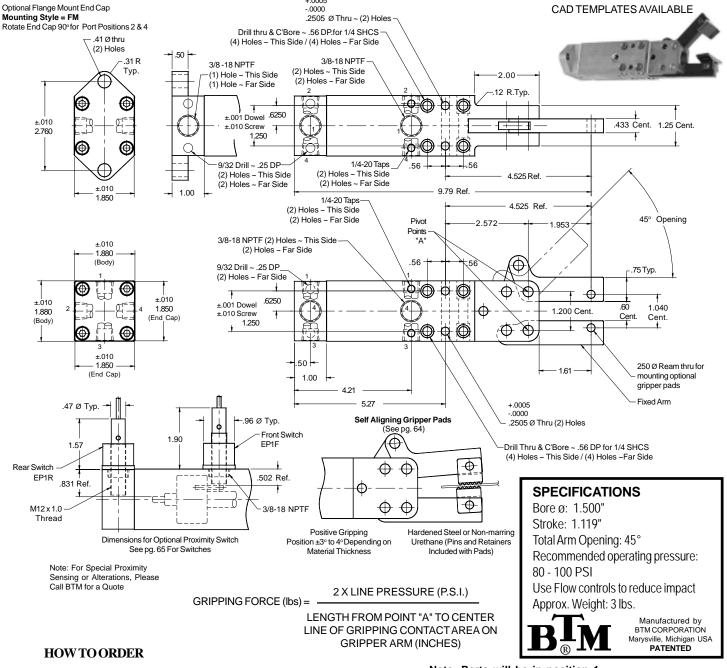
1500 Series Power Gripper **PG 1500-D 90**



POWER GRIPPER unless otherwise specified 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 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F * REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R* SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-1500- 90-FM - 5272 - FP4 - RP4 - EP2F - EP2R - AC PR1R, PR2R, PR3R, PR4R Body Mount No. 005316 **OPTIONS** Spacers and/or adapters may be necessary. Flange Mount No. 005330 See pg. 66 for more information

1500 Series Power Gripper **PG 1500-S 45**

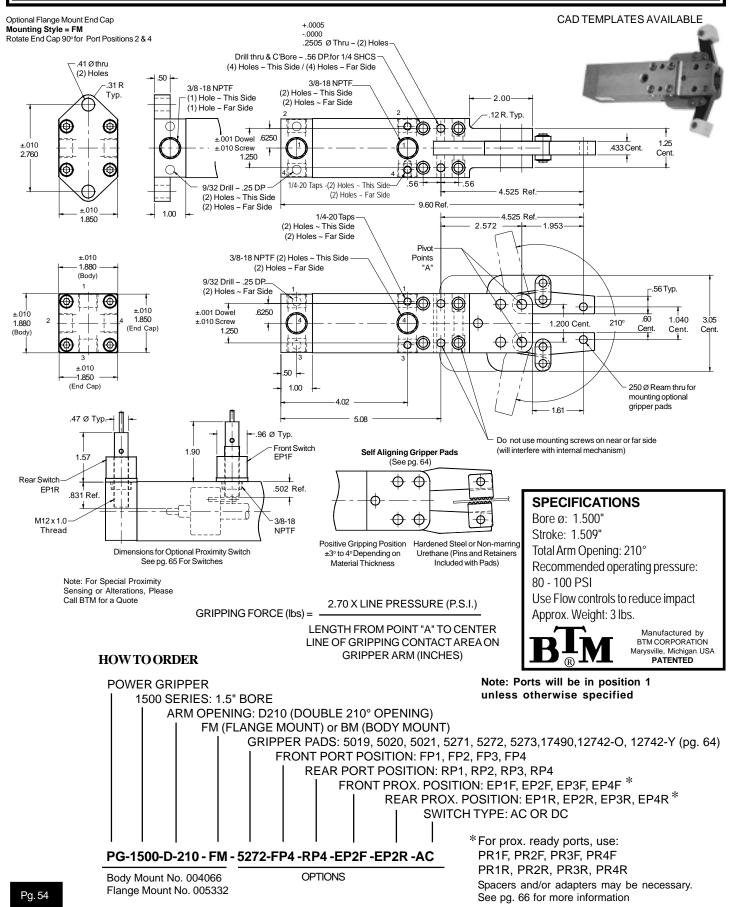




Note: Ports will be in position 1 POWER GRIPPER unless otherwise specified 1500 SERIES: 1.5" BORE ARM OPENING: S45 (SINGLE 45° OPENING) FM (FLANGE MOUNT) or BM (BODY MOUNT) GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273, 17490, 12742-O, 12742-Y (pg. 64) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F * REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R * SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-1500-S45 - FM - 5272-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R Spacers and/or adapters may be necessary. Body Mount No. 005326 **OPTIONS** Flange Mount No. 005329 See pg. 66 for more information

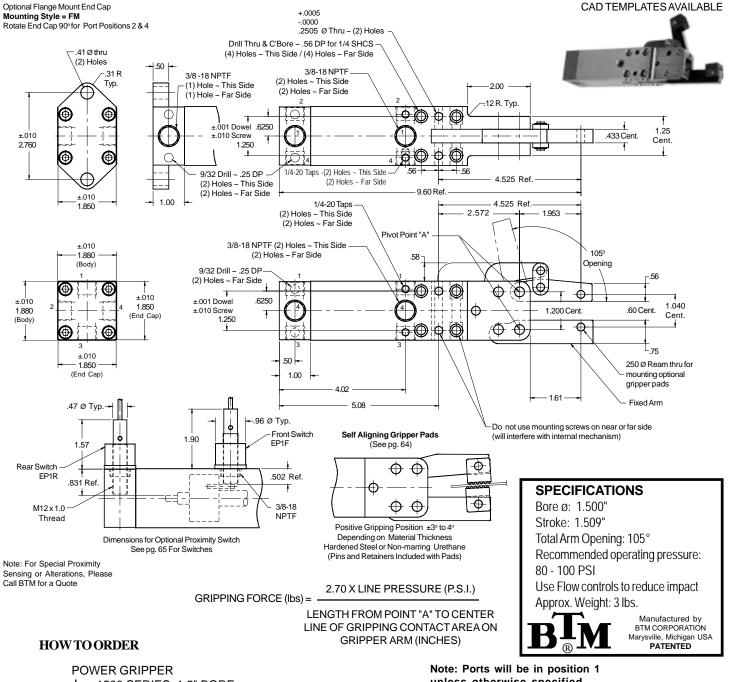


1500 Series Power Gripper **PG 1500-D 210**



1500 Series Power Gripper **PG 1500-S105**

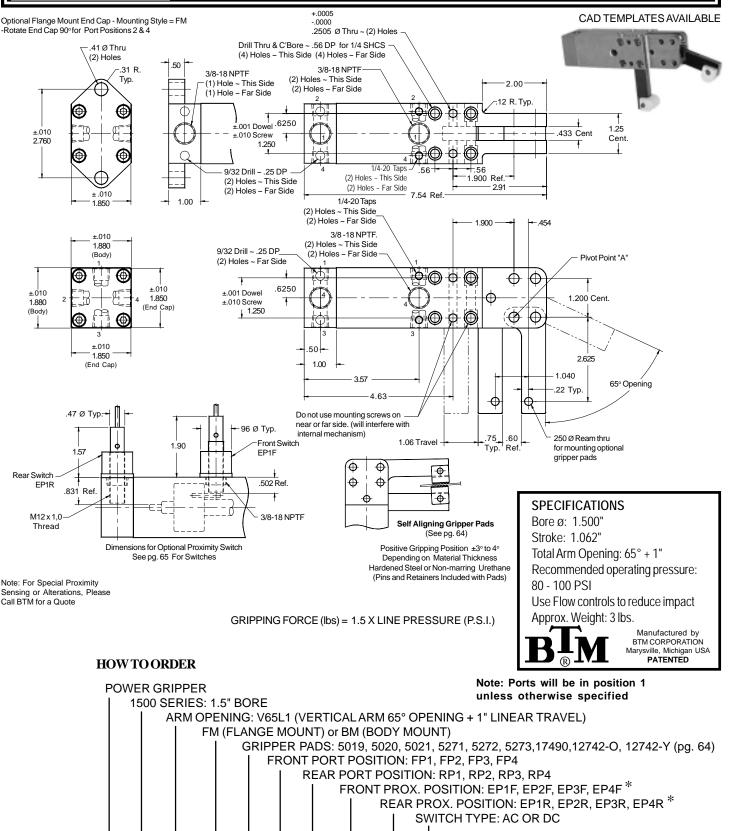




unless otherwise specified 1500 SERIES: 1.5" BORE ARM OPENING: S105 (SINGLE 105° OPENING) FM (FLANGE MOUNT) or BM (BODY MOUNT) GRIPPER PADS: 5019, 5020, 5021, 5271, 5272, 5273,17490,12742-O, 12742-Y (pg. 64) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F st REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R * SWITCH TYPE: AC OR DC *For prox. ready ports, use: PG-1500-S105 - FM - 5272-FP4 -RP4 -EP2F -EP2R -AC PR1F, PR2F, PR3F, PR4F PR1R, PR2R, PR3R, PR4R **OPTIONS** Body Mount No. 004070 Spacers and/or adapters may be necessary. Flange Mount No. 005331 See pg. 66 for more information



1500 Series Power Gripper **PG 1500-V65L1**



Pg. 56

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

OPTIONS

Body Mount No. 005310

Flange Mount No. 005333

*For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F

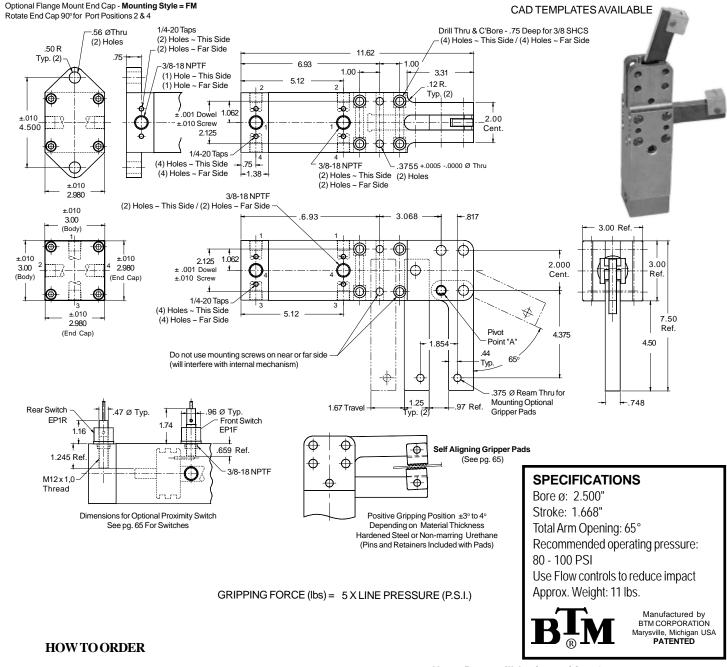
PR1R, PR2R, PR3R, PR4R

See pg. 66 for more information

Spacers and/or adapters may be necessary.

2500 Series Power Gripper **PG 2500-V65L1.67**

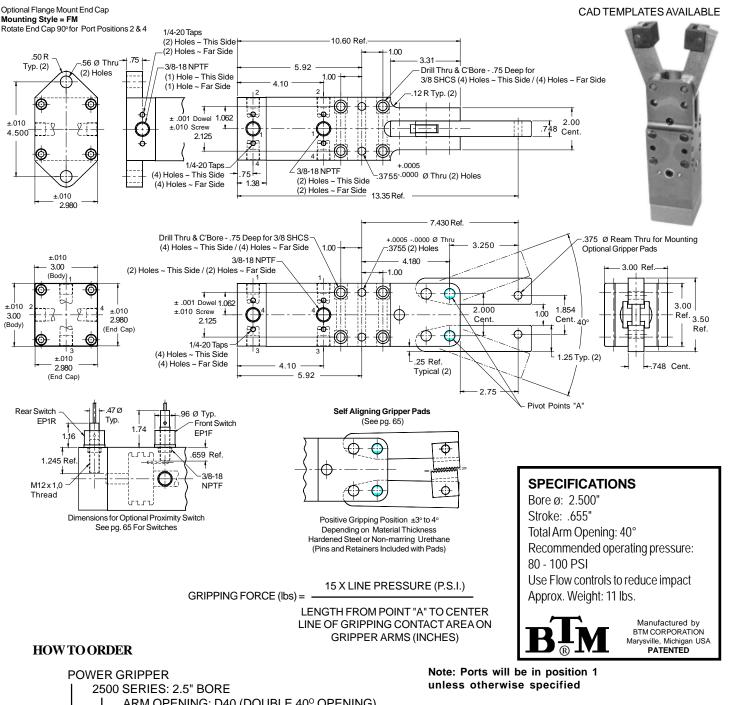




POWER GRIPPER Note: Ports will be in position 1 unless otherwise specified 2500 SERIES: 2.5" BORE ARM OPENING: V65-L1.67 (65° OPENING) FLANGE MOUNT GRIPPER PADS: 5284,5285,5287,5288,5290,5291 (pg. 65) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F st REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R * SWITCH TYPE: AC OR DC *For prox. ready ports, use: PG-2500-V65L1.67 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC PR1F, PR2F, PR3F, PR4F PR1R, PR2R, PR3R, PR4R Body Mount No. 006809 **OPTIONS** Spacers and/or adapters may be necessary. Flange Mount No. 006822 See pg. 66 for more information



2500 Series Power Gripper **PG 2500-D 40**

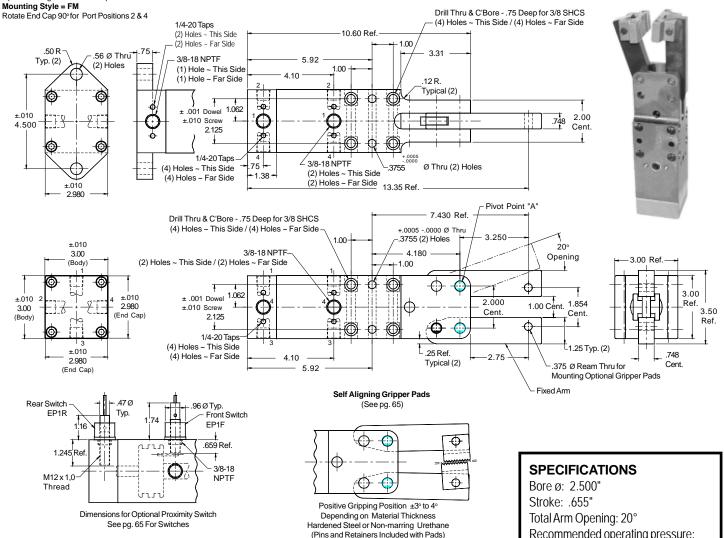


ARM OPENING: D40 (DOUBLE 40° OPENING) FM (FLANGE MOUNT) or BM (BODY MOUNT) GRIPPER PADS: 5284,5285,5287,5288,5290,5291 (pg. 65) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F* REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R* SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-2500-D40 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R Body Mount No. 001439 Spacers and/or adapters may be necessary. Flange Mount No. 006813 See pg. 66 for more information

2500 Series Power Gripper PG 2500-S 20







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

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

Recommended operating pressure:

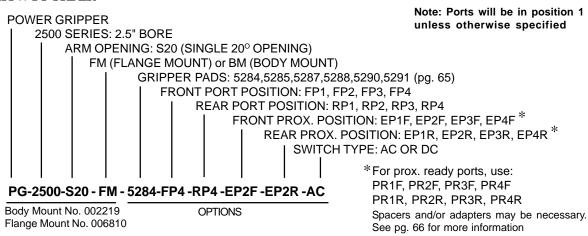
80 - 100 PSI

Use Flow controls to reduce impact Approx. Weight: 11 lbs.

Manufactured by BTM CORPORATION Marysville, Michigan USA PATENTED

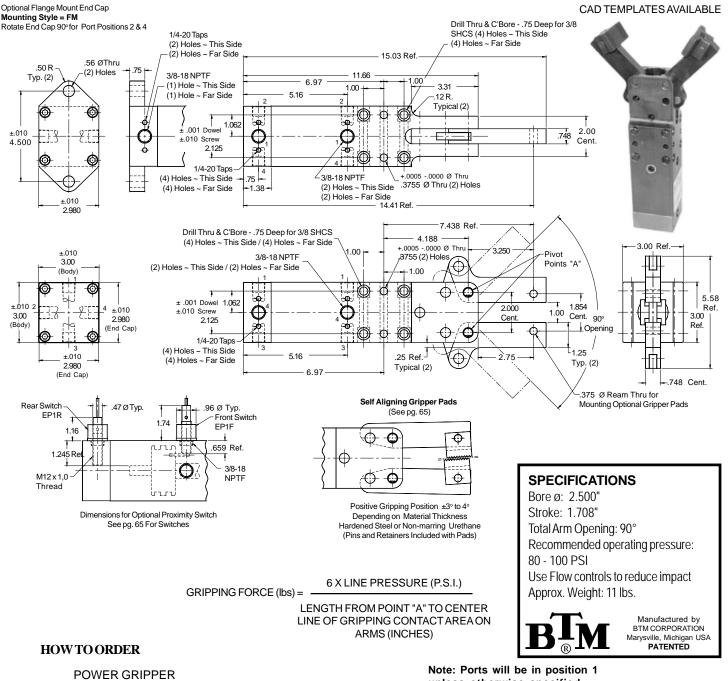
HOW TO ORDER

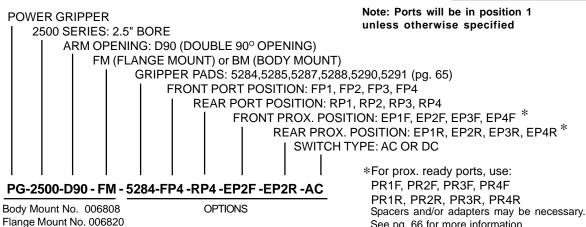
Optional Flange Mount End Cap





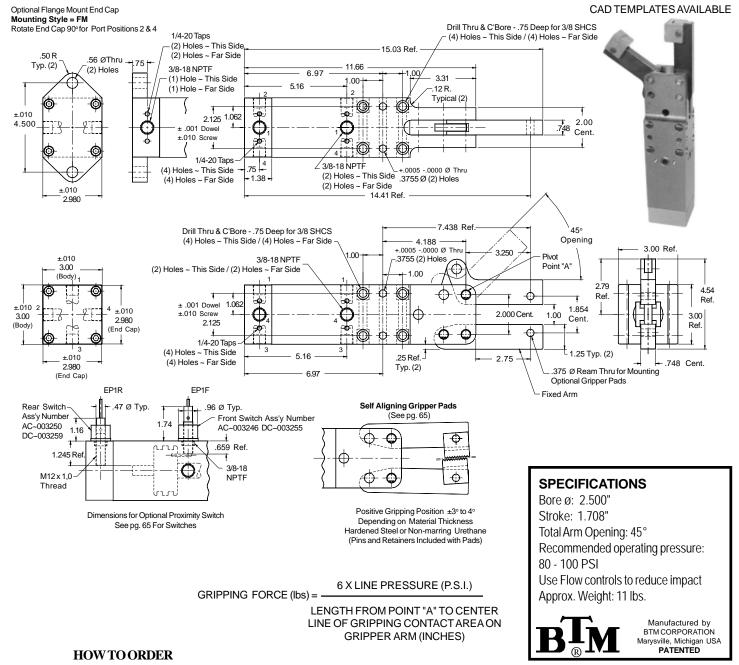
2500 Series Power Gripper PG 2500-D 90





2500 Series Power Gripper **PG 2500-S 45**

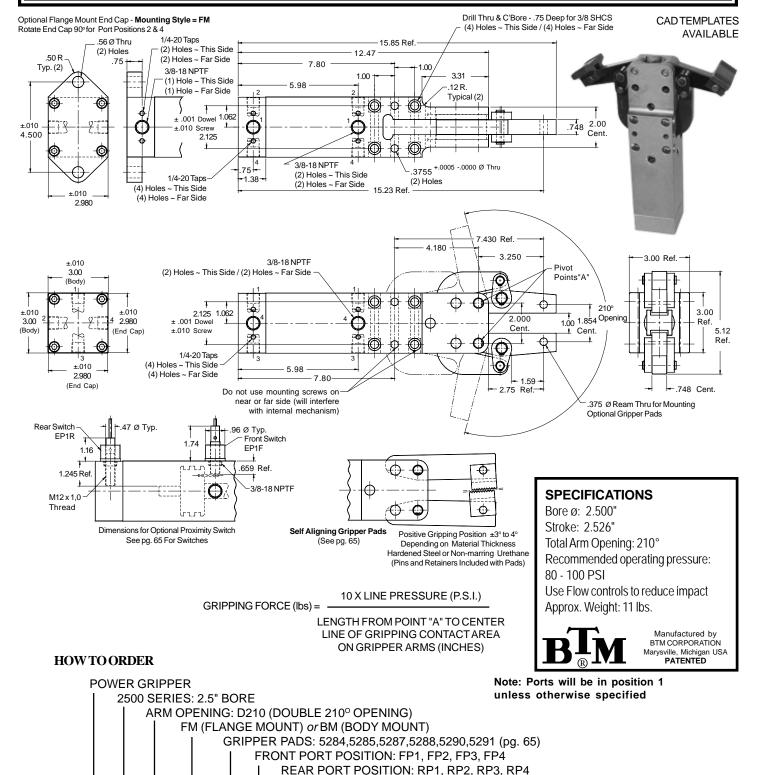




Note: Ports will be in position 1 POWER GRIPPER unless otherwise specified 2500 SERIES: 2.5" BORE ARM OPENING: S45 (SINGLE 45° OPENING) FM (FLANGE MOUNT) or BM (BODY MOUNT) GRIPPER PADS: 5284,5285,5287,5288,5290,5291 (pg. 65) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F * REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R * SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-2500-S45 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R **OPTIONS** Body Mount No. 006807 Spacers and/or adapters may be necessary. Flange Mount No. 006818 See pg. 66 for more information



2500 Series Power Gripper PG 2500-D 210



Body Mount No. 006355 Flange Mount No. 006816 **OPTIONS**

PG-2500-D210 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC

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

REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R*

FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *

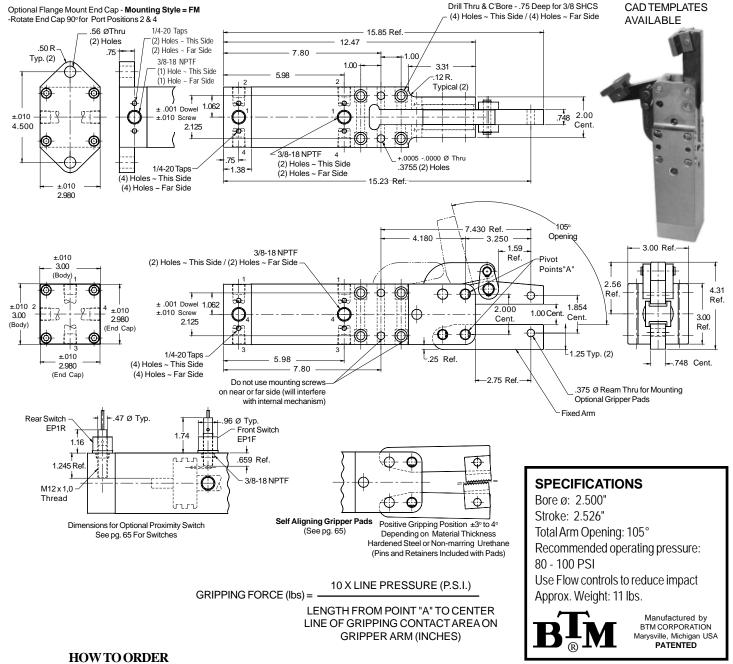
SWITCH TYPE: AC OR DC

Spacers and/or adapters may be necessary.

See pg. 66 for more information

2500 Series Power Gripper **PG 2500-S 105**

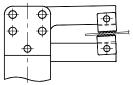


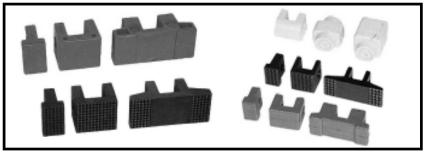


Note: Ports will be in position 1 POWER GRIPPER unless otherwise specified 2500 SERIES: 2.5" BORE ARM OPENING: S105 (SINGLE S105° OPENING) FM (FLANGE MOUNT) or BM (BODY MOUNT) GRIPPER PADS: 5284,5285,5287,5288,5290,5291 (pg. 65) FRONT PORT POSITION: FP1, FP2, FP3, FP4 REAR PORT POSITION: RP1, RP2, RP3, RP4 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R SWITCH TYPE: AC OR DC *For prox. ready ports, use: PR1F, PR2F, PR3F, PR4F PG-2500-S105 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC PR1R, PR2R, PR3R, PR4R Body Mount No. 006806 **OPTIONS** Spacers and/or adapters may be necessary. Flange Mount No. 006814 See pg. 66 for more information

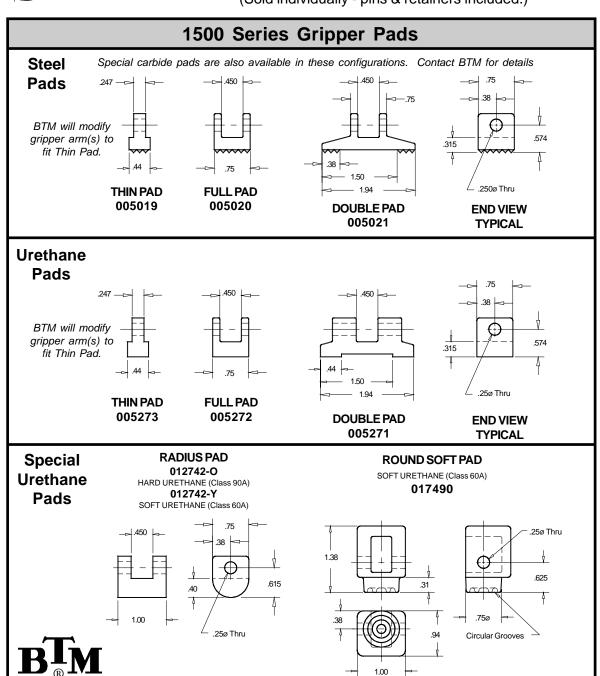
Accessories

Self-Aligning Gripper Pads Positive Gripping Position ± 3° to 4° (Dependent on Material Thickness) Eliminates the guesswork of welded-on pads.



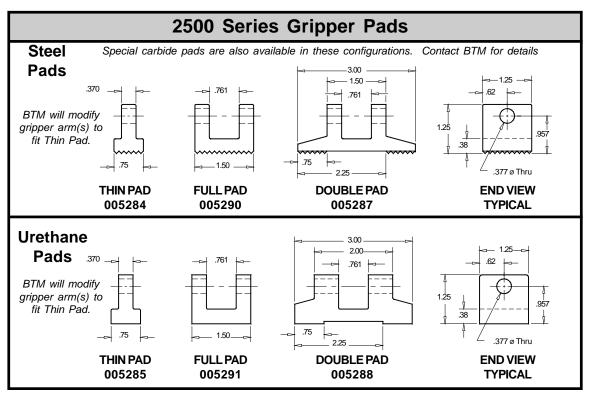


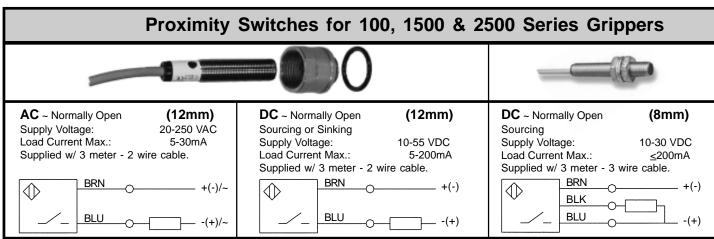
Available in Hardened Steel or Non-Marring Urethane. (Sold individually - pins & retainers included.)

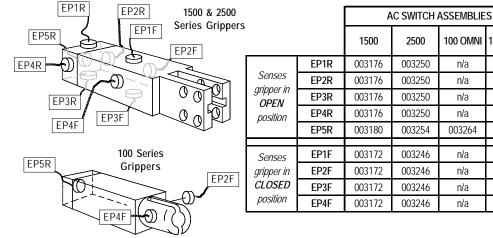


Accessories









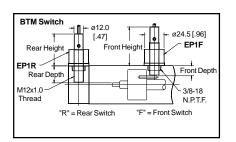
		Д	AC SWITCH ASSEMBLIES					DC SWITCH ASSEMBLIES			
		1500	2500	100 OMNI	1500 OMNI		1500	2500	100 OMNI	1500 OMNI	
	EP1R	003176	003250	n/a	018067		003241	003259	n/a	018068	
Senses gripper in	EP2R	003176	003250	n/a	018067		003241	003259	n/a	018068	
gripper in OPEN position	EP3R	003176	003250	n/a	018067		003241	003259	n/a	018068	
	EP4R	003176	003250	n/a	018067		003241	003259	n/a	018068	
	EP5R	003180	003254	003264	003270		003245	003263	003266	003273	
2	EP1F	003172	003246	n/a	018069		003237	003255	n/a	018070	
Senses						Н					
gripper in CLOSED position	EP2F	003172	003246	n/a	018069		003237	003255	003265	018070	
	EP3F	003172	003246	n/a	018069		003237	003255	n/a	018070	
	EP4F	003172	003246	n/a	018069		003237	003255	003265	018070	

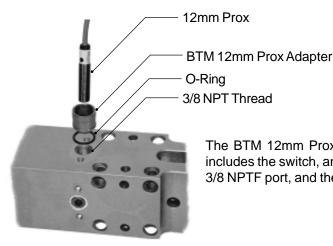


1500 & 2500 Series Power Grippers **Prox Switch Ordering Options**

BTM 12mm Prox Switch

EP1F, EP1R, EP2F, EP2R, EP3F, EP3R EP4F, EP4R, EP5R





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)

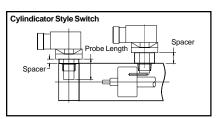
Cylindicator Mounting

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 cylindcator mounting face and the gripper body. Use the chart below to determine the appropriate spacer required based on the cylindicator probe length.

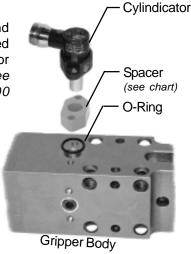


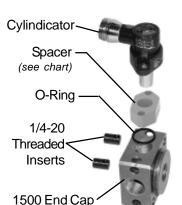
Each air port in the 1500 and 2500 Series grippers is flanked by (2) 1/4-20 tapped holes for cylindicator mounting. See exception below for 1500 Series cylinder end caps.



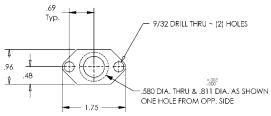
For 1500 Series Grippers: The cylinder end cap of the 1500

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.





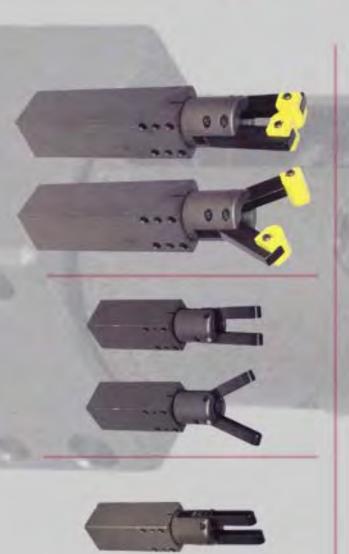
Cylindicator Spacer



+.00 000	_	ı	1	1	Ý
.047	V				A005
	A		- 1		Δ

BTM No	Clam p Series	Position	"A" Dimension	Probe Length			
013643	1500	FRONT	0.427	0.915			
006013	1500	FRONT	0.470	0.950			
015993	1500	FRONT	0.530	1.025			
016261	1500	FRONT	0.762	1.250			
013644	1500	REAR	0.094	0.915			
006012	1500	REAR	0.135	0.950			
015992	1500	REAR	0.205	1.025			
016057	2500	FRONT	0.379	1.025			
006595	2500	FRONT	0.590	1.225			
019220	2500	FRONT	0.705	1.350			
no spacer required	2500	REAR	no spacer required	1.225			
719608A	2500	REAR	0.112	1.350			
018469	2500	REAR	0.837	2.062			
	O-Ring is included with spacer						

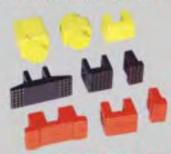
Omni Series Grippers





STANDARD PADS



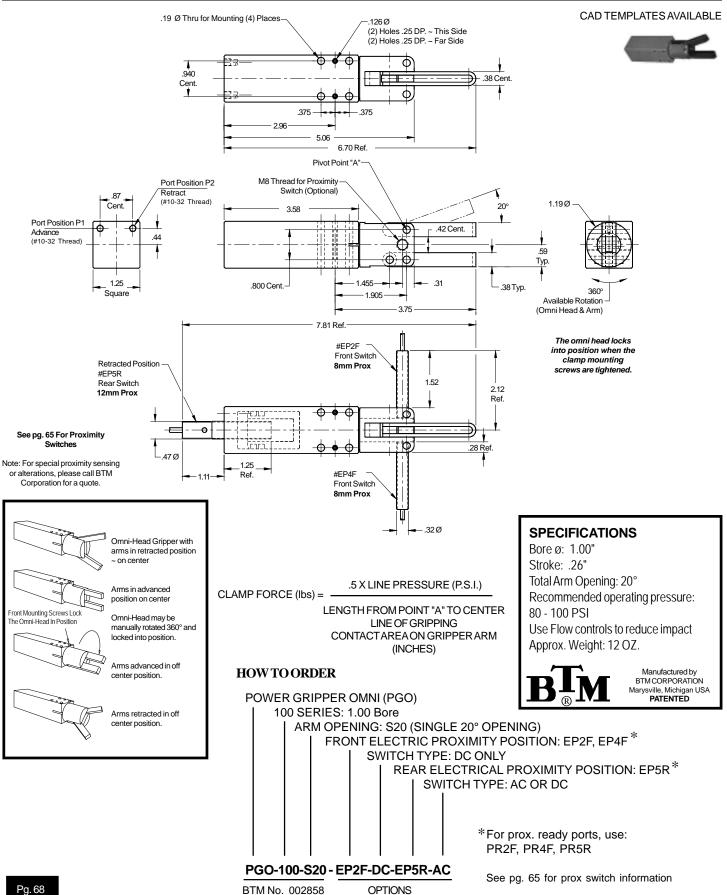


Pa. 6

CUSTOM PADS AVAILABLE

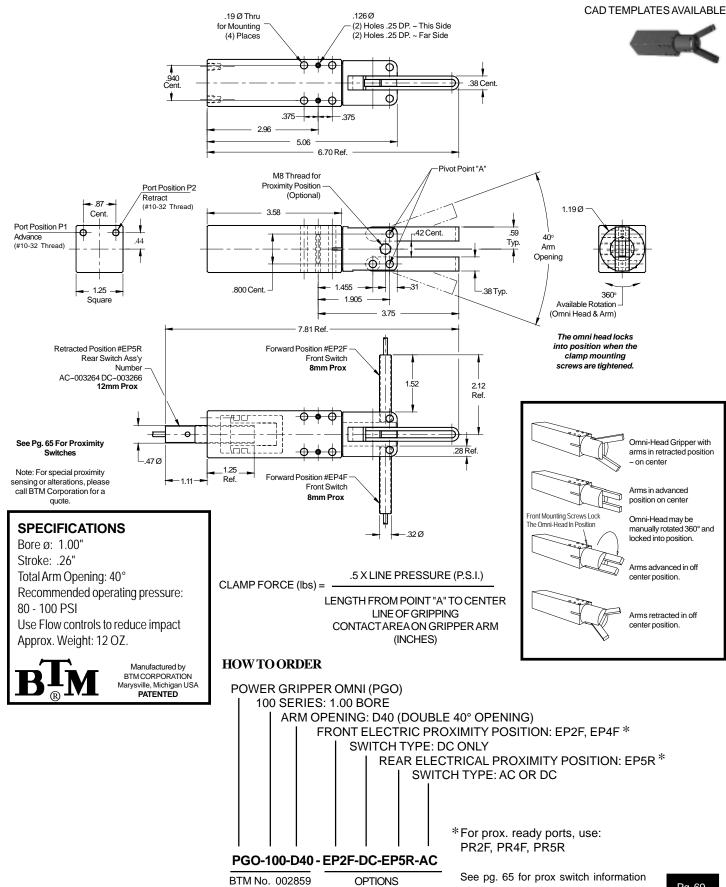


100 Series Omni Gripper PGO-100-S20



100 Series Omni Gripper PGO-100-D40

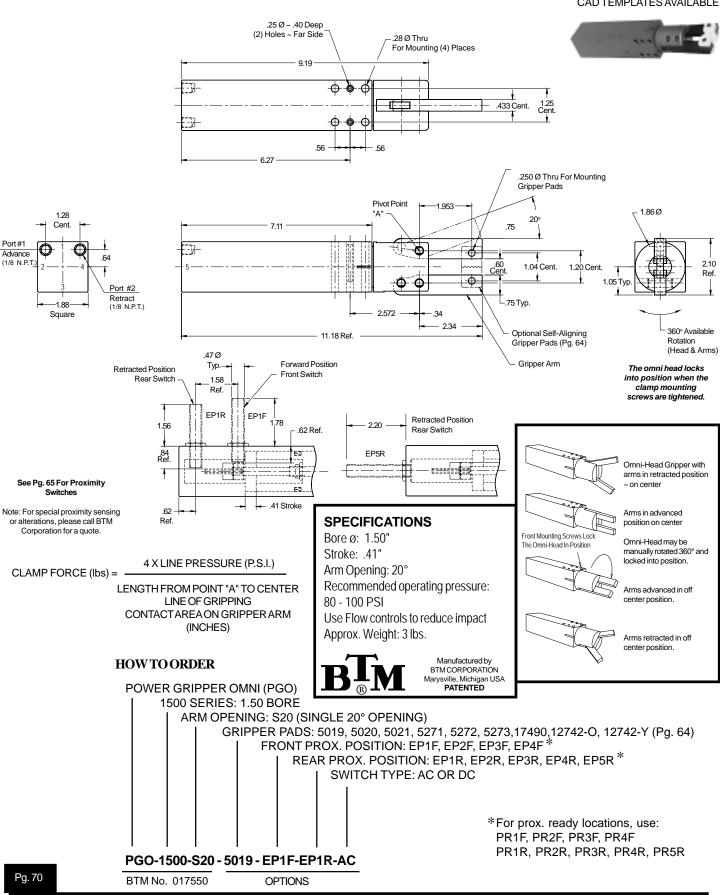






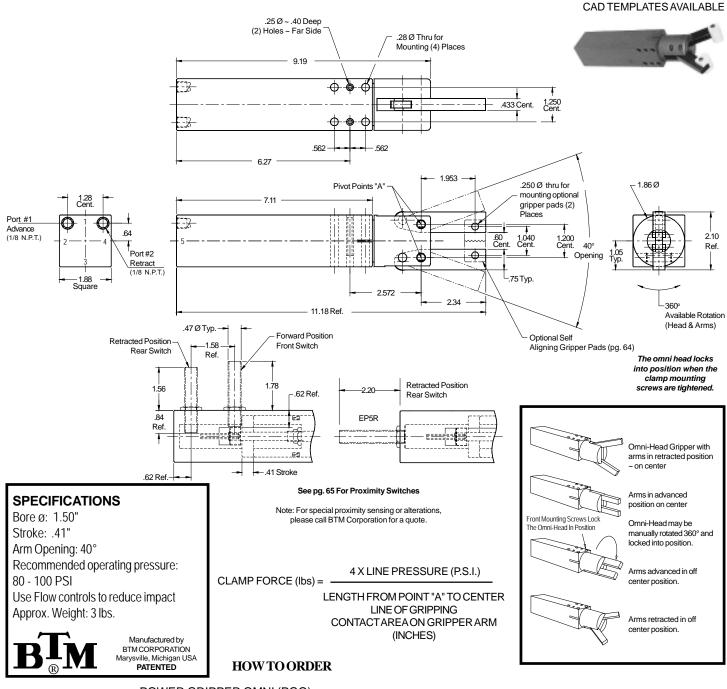
1500 Series Omni Gripper PGO-1500-S20

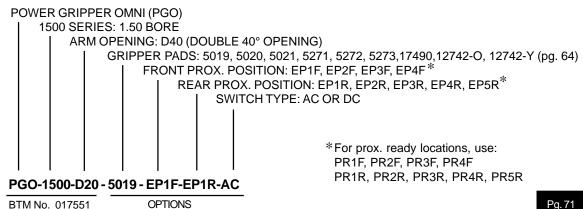
CAD TEMPLATES AVAILABLE



1500 Series Omni Gripper PGO-1500-D40







Product Line

