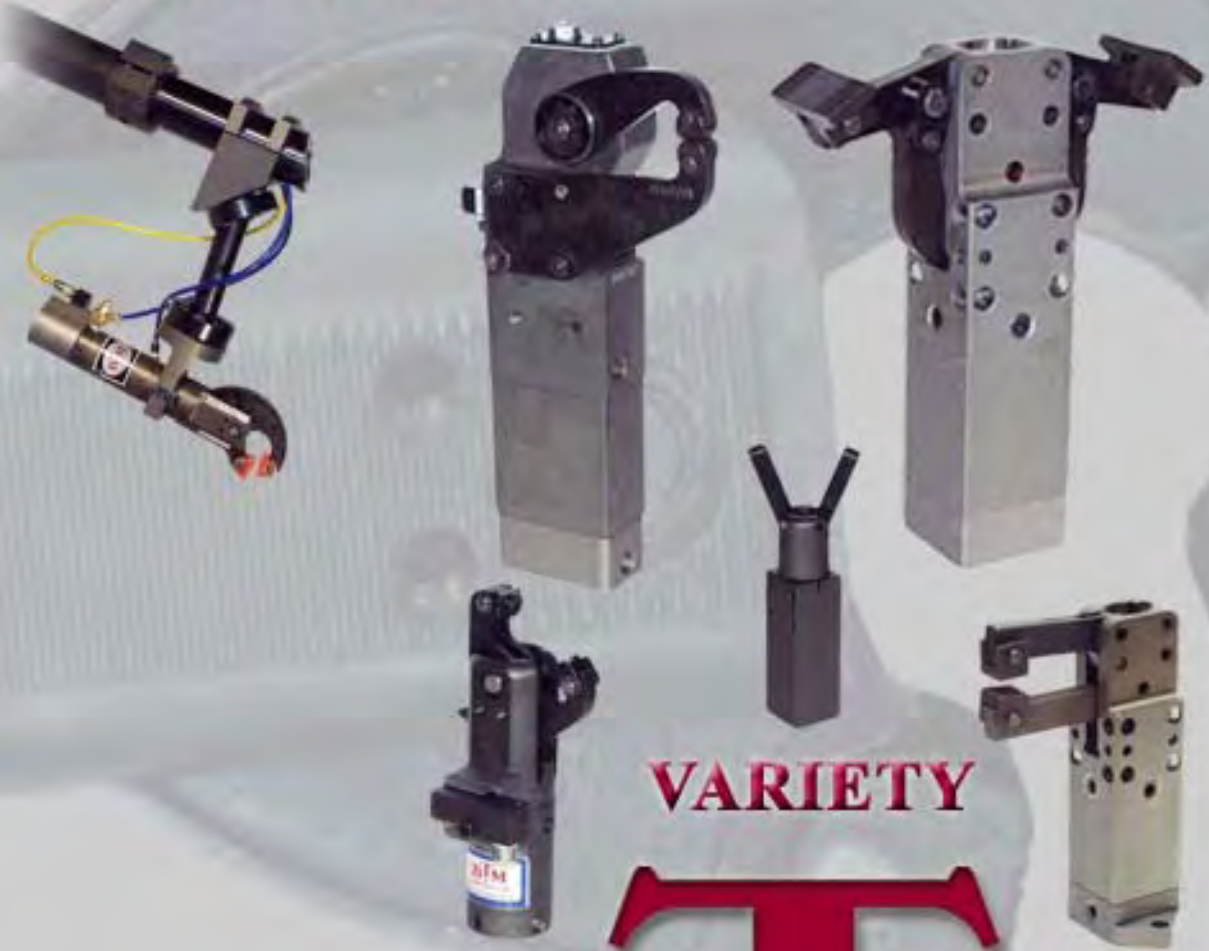


Grippers

APPLICATIONS



PADS



VARIETY

BTM[®]

CORPORATION

www.btmcorp.com

Contents



LOCKING GRIPPERS



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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PG-38 Locking Grippers



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PG-45 Locking Grippers



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PG38 & PG45 Components.....		30
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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 remain locked on the part, even if air pressure is lost.

Page

PG-38 Mini Locking Grippers



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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.



Page

Sealed Heavy Duty Grippers

SHDG 52 52mm Bore Oval Piston Single Opening Fixed Arm	46
SHDG 52 Flange... 52mm Bore Oval Piston Single Opening Fixed Flange Arm	47
Accessories Mounts & Gripper Pads	48

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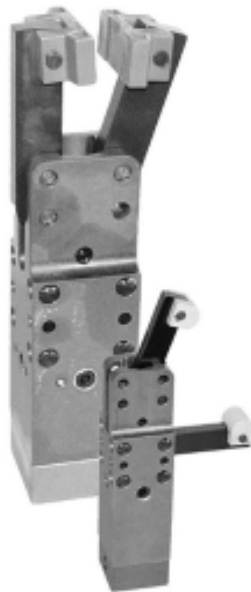


TOGGLE GRIPPERS



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.

Page



Heavy Duty Grippers

PG 1500 D-40	1.5" Bore Double Opening 40°	50
PG 1500 S-20	1.5" Bore Single Opening 20°	51
PG 1500 D-90	1.5" Bore Double Opening 90°	52
PG 1500 S-45	1.5" Bore Single Opening 45°	53
PG 1500 D-210	1.5" Bore Double Opening 210°	54
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PG 1500 V-65/L-1	1.5" Bore 65° + 1" Linear	56
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PG 2500 D-40	2.5" Bore Double Opening 40°	58
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PG 2500 D-90	2.5" Bore Double Opening 90°	60
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Heavy Duty Gripper Accessories

1500 Series Gripper Pads	64
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Proximity Switches for 100, 1500, & 2500 Series Grippers.....	65
Proximity Switch Ordering Options.....	66

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.

Page



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
PGO 1500 D-40	1.5" Bore Double Opening 40°	71

PG-38 Grippers



STANDARD PADS



CUSTOM PADS AVAILABLE



Common Body Multiple Configurations

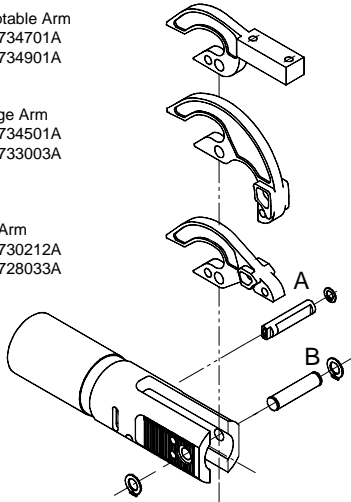
Pin "A" adjusts the arm opening to 30°, 45° or 75°.

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

Upper Adaptable Arm
PG-38 No. 734701A
PG-45 No. 734901A

Upper Flange Arm
PG-38 No. 734501A
PG-45 No. 733003A

Upper Pad Arm
PG-38 No. 730212A
PG-45 No. 728033A



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

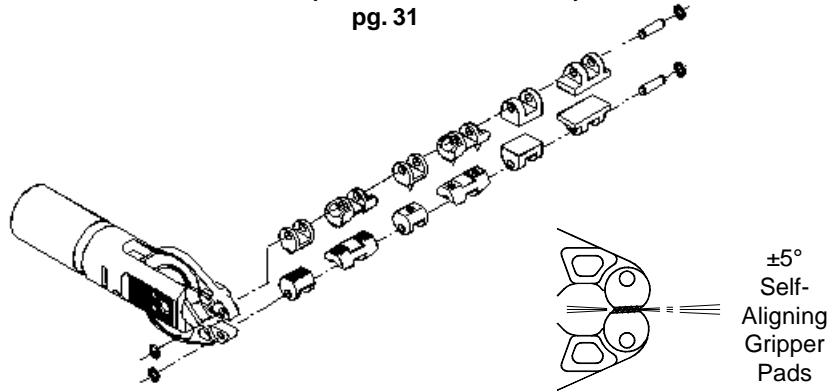
Lower Opening Adaptable Arm
PG-38 No. 734801A
PG-45 No. 735001A

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 $\pm 5^\circ$ to "find" the part. No shims or adjustments are necessary.

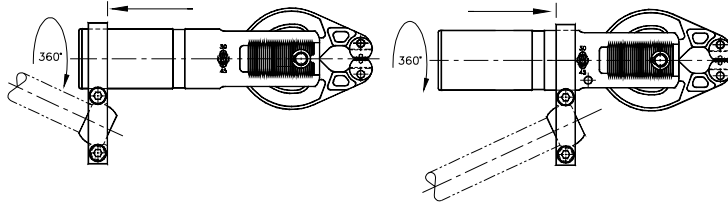
pg. 31



Flexible Mounting

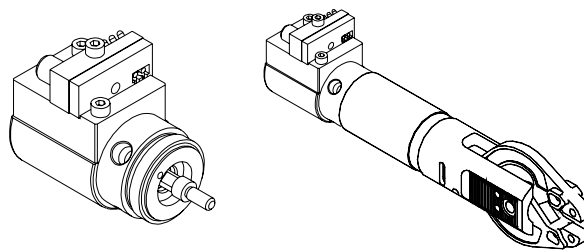
The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position. Patent No 5,647,625.

pg. 32



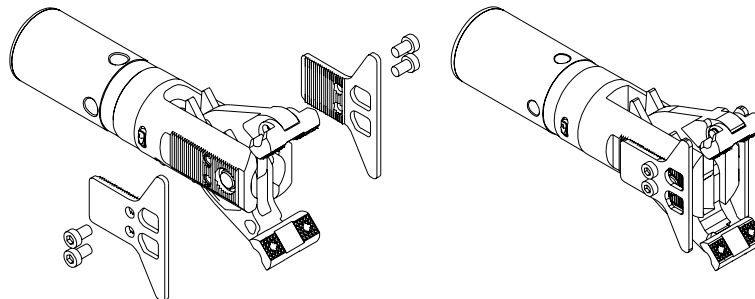
Proximity Switches

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

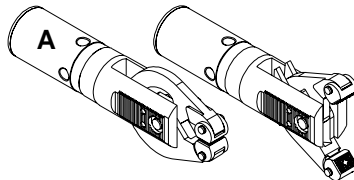
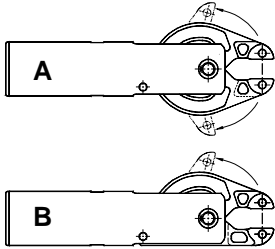


Locking Grip
Roller finds detent on the cam surface to hold the part if air pressure is lost.

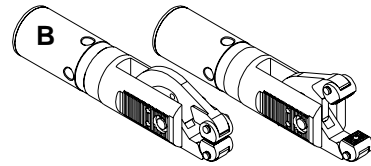
Adjustable Opening
A single pin adjusts the arm opening to 30° or 45°, remove the pin for 75° opening.



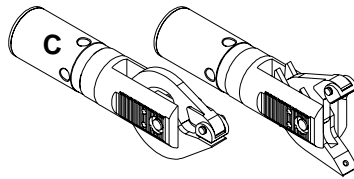
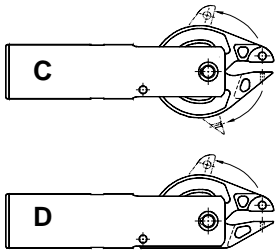
ARM STYLES



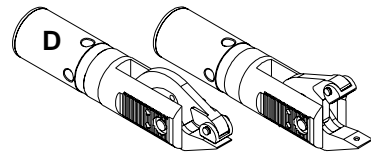
Double Opening Pad Arms
30°, 45° or 75° opening per arm
PG-38 A
pg. 8



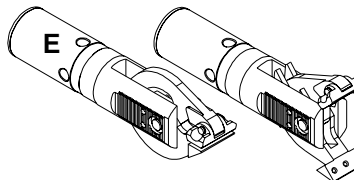
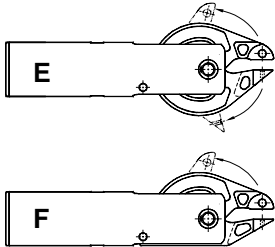
Single Opening Fixed Pad Arm
30°, 45° or 75° opening
PG-38 B
pg. 9



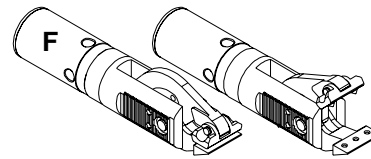
Double Opening Single Chisel Arm
30°, 45° or 75° opening per arm
PG-38 C
pg. 10



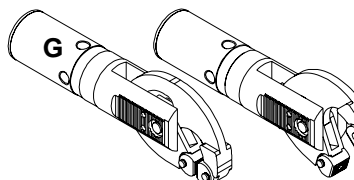
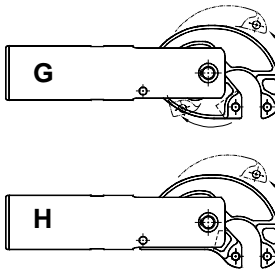
Single Opening Fixed Single Chisel Arm
30°, 45° or 75° opening
PG-38 D
pg. 11



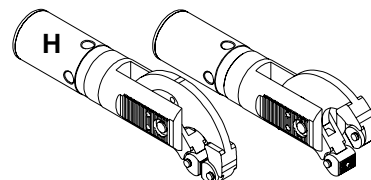
Double Opening Double Chisel Arm
30°, 45° or 75° opening per arm
PG-38 E
pg. 12



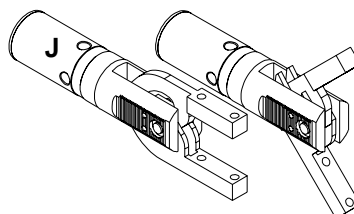
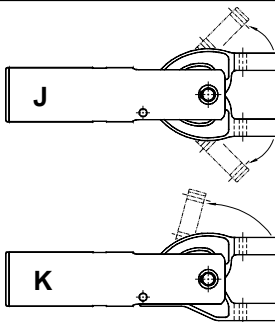
Single Opening Fixed Double Chisel Arm
30°, 45° or 75° opening
PG-38 F
pg. 13



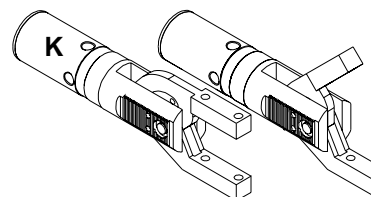
Double Opening Flange Pad Arms
30°, 45° or 75° upper arm opening
16°, 22° or 45° lower arm opening
PG-38 G
pg. 14



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

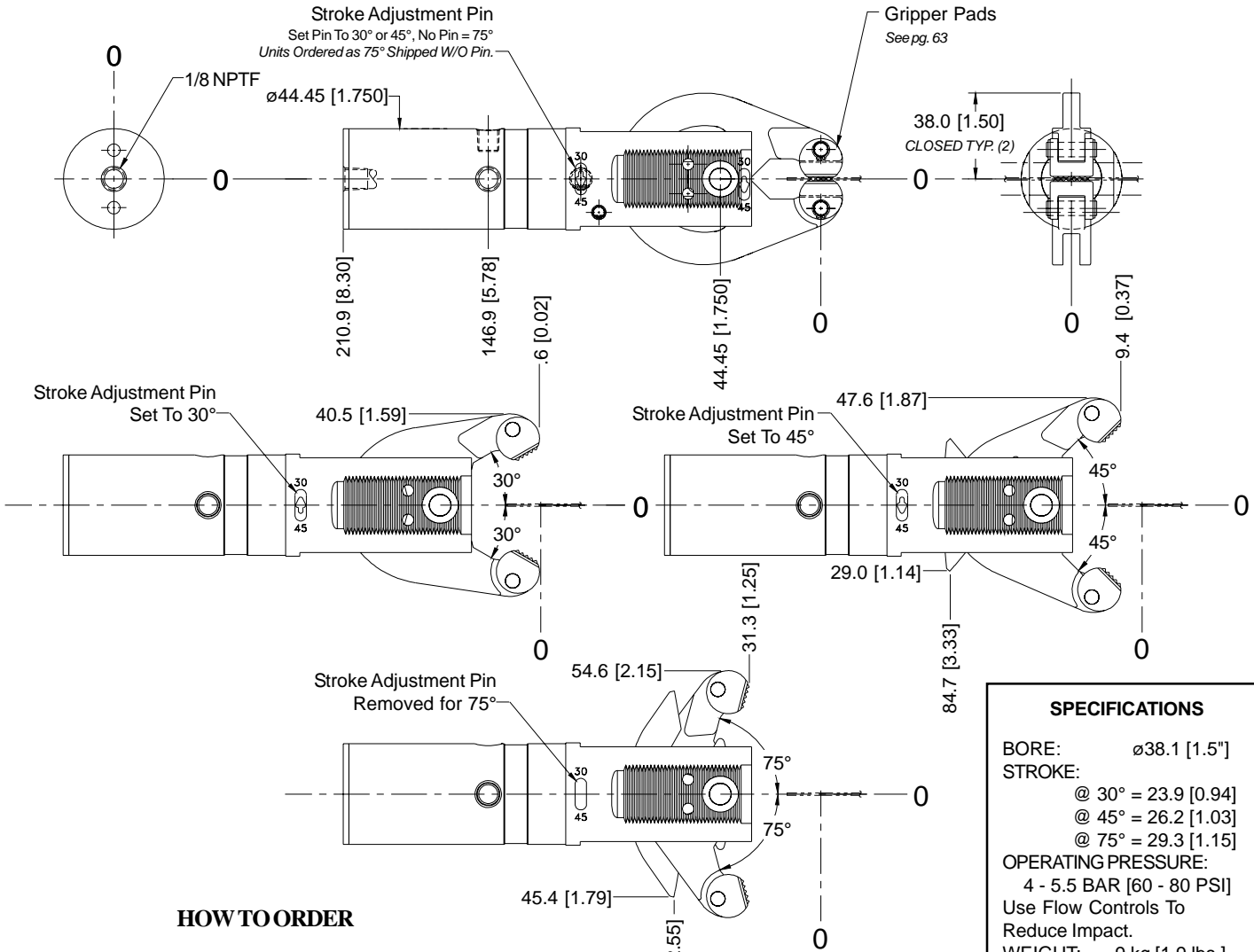
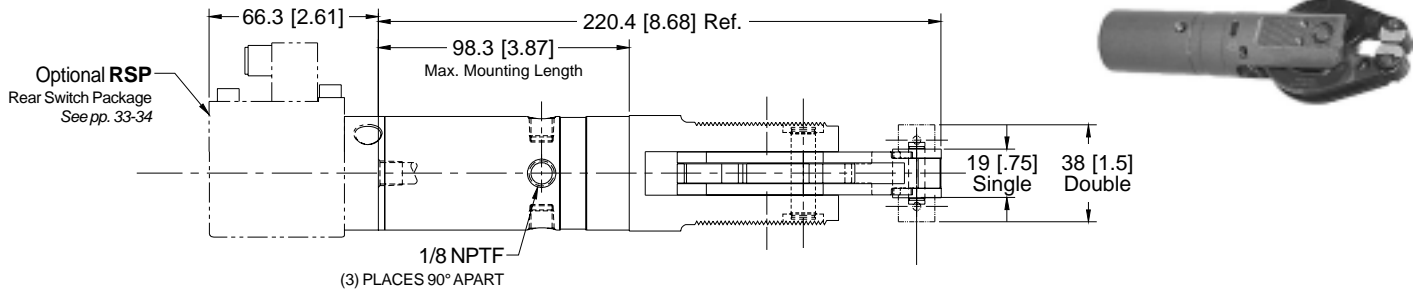


Double Opening Adaptable Arm
30° or 45° opening per arm
PG-38 J
pg. 16



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

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
	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
- 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)

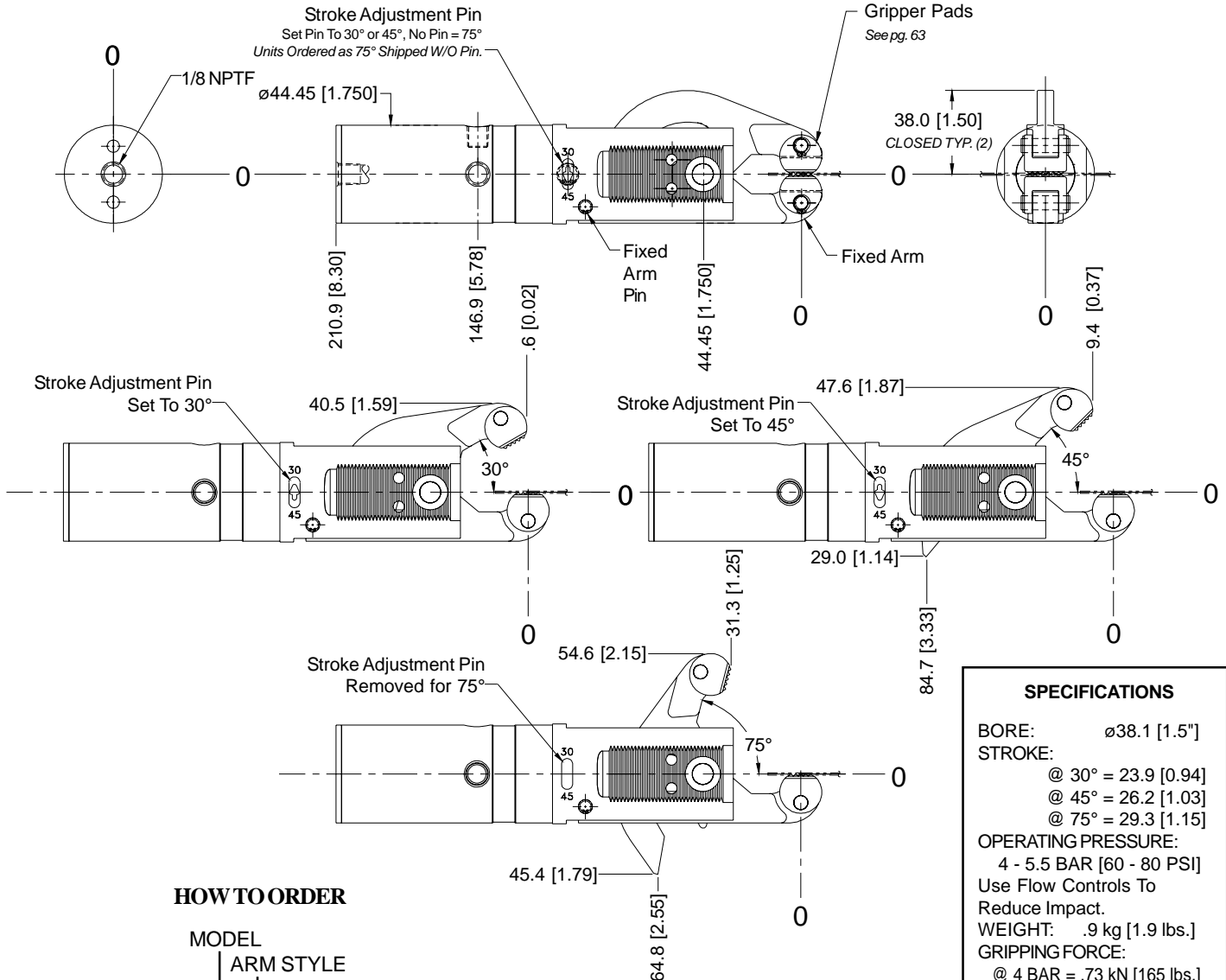
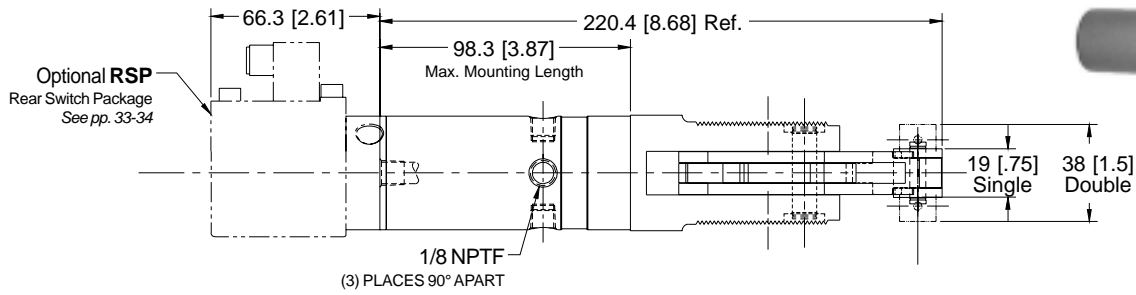
PG38A - 30 - 3 - 3 - TM - PS - RSPT-DC

PG-38B ~ Single Opening ~ Pad Arms

BTM No. 730200A



CAD TEMPLATES AVAILABLE



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.]

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)

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

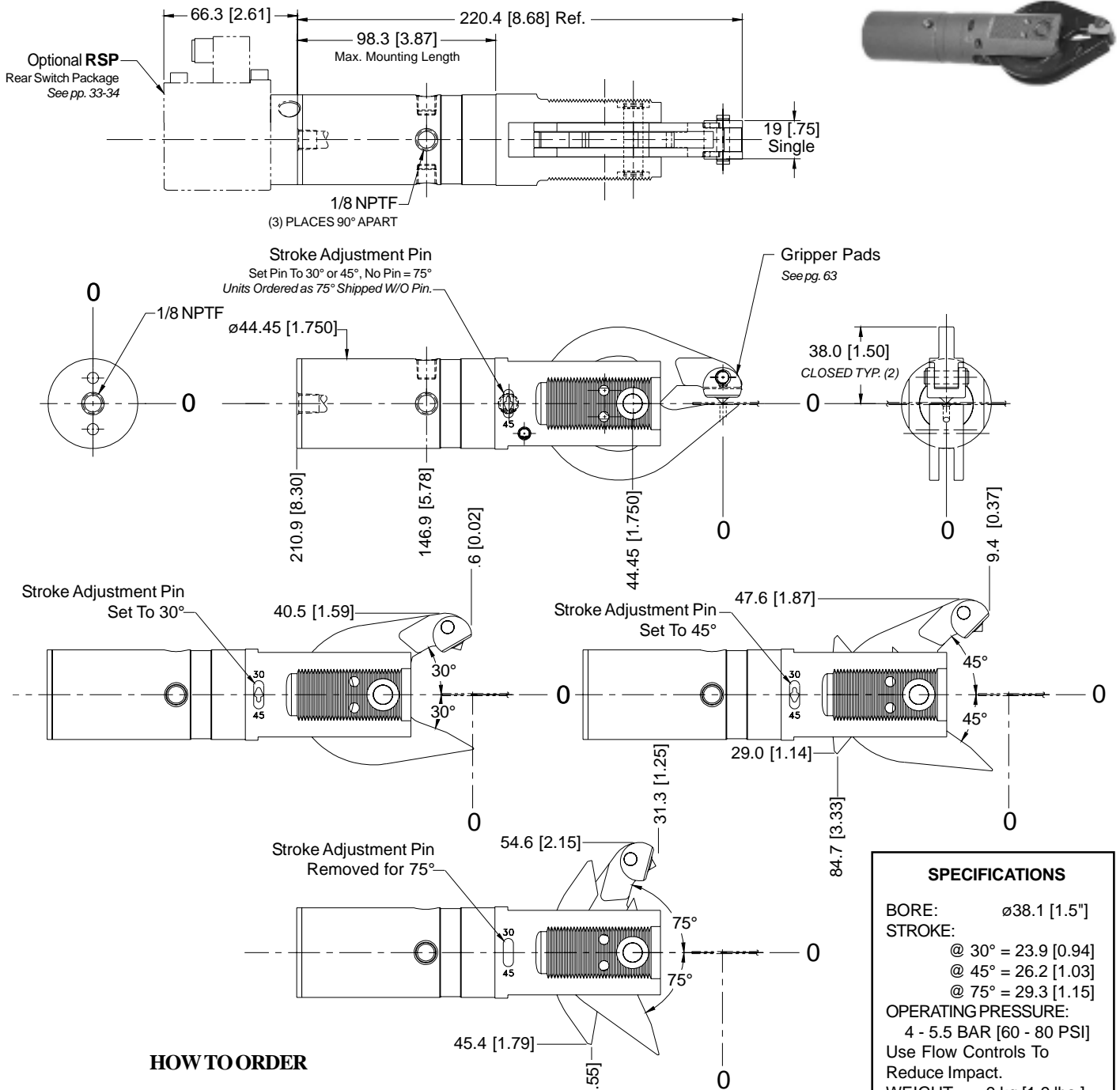
BTM No. 730200A

OPTIONS

PATENTED

Pg. 9

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
	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
- ARM STYLE
- ARM OPENING (30°, 45°, or 75°)
- 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)

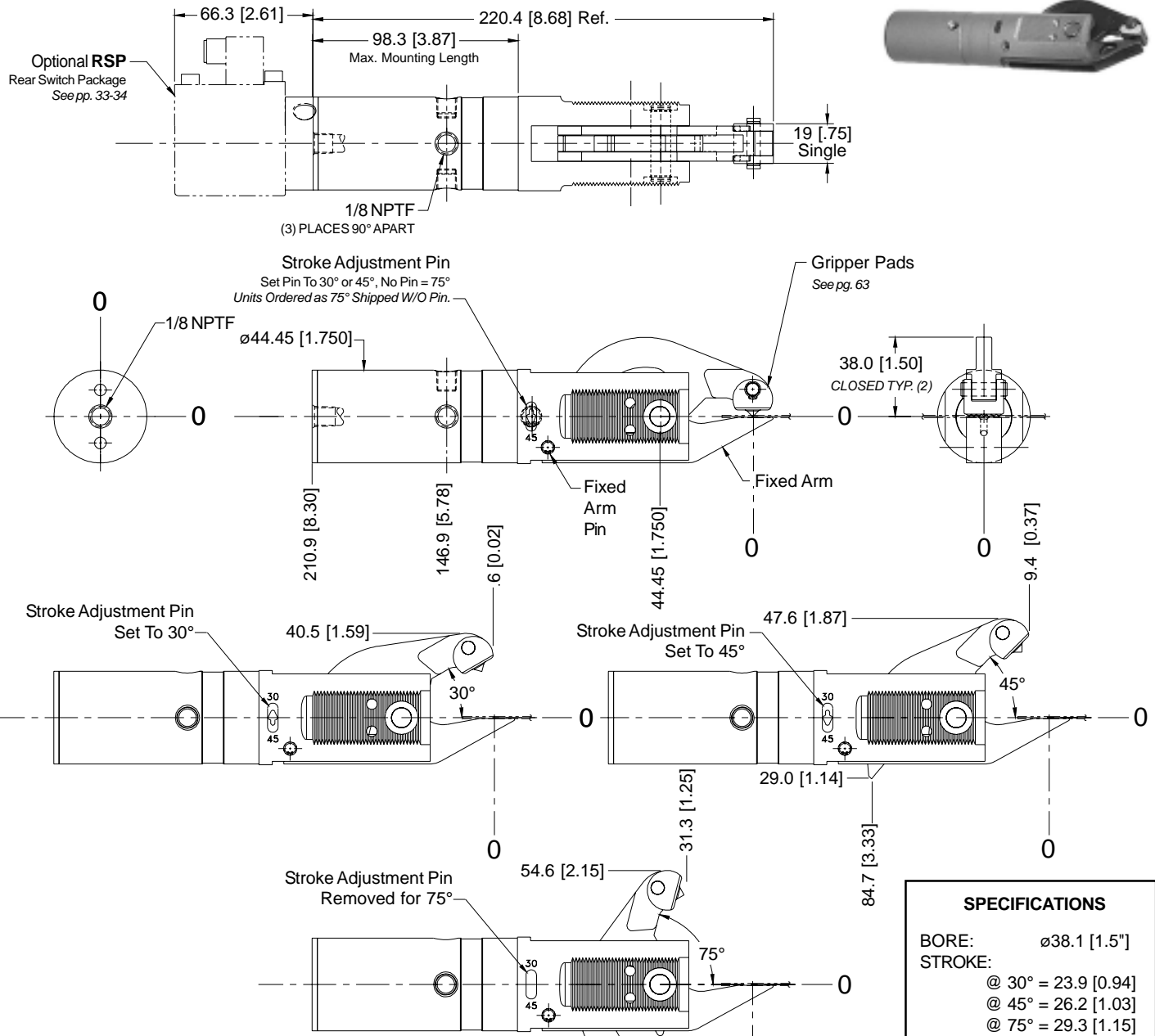
PG38C - 30 - 3 - TM - PS - RSPT-DC

PG-38D ~ Single Opening ~ Single Chisel Arm

BTM No. 730400A



CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
	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
- ARM STYLE
- ARM OPENING (30°, 45°, or 75°)
- 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)

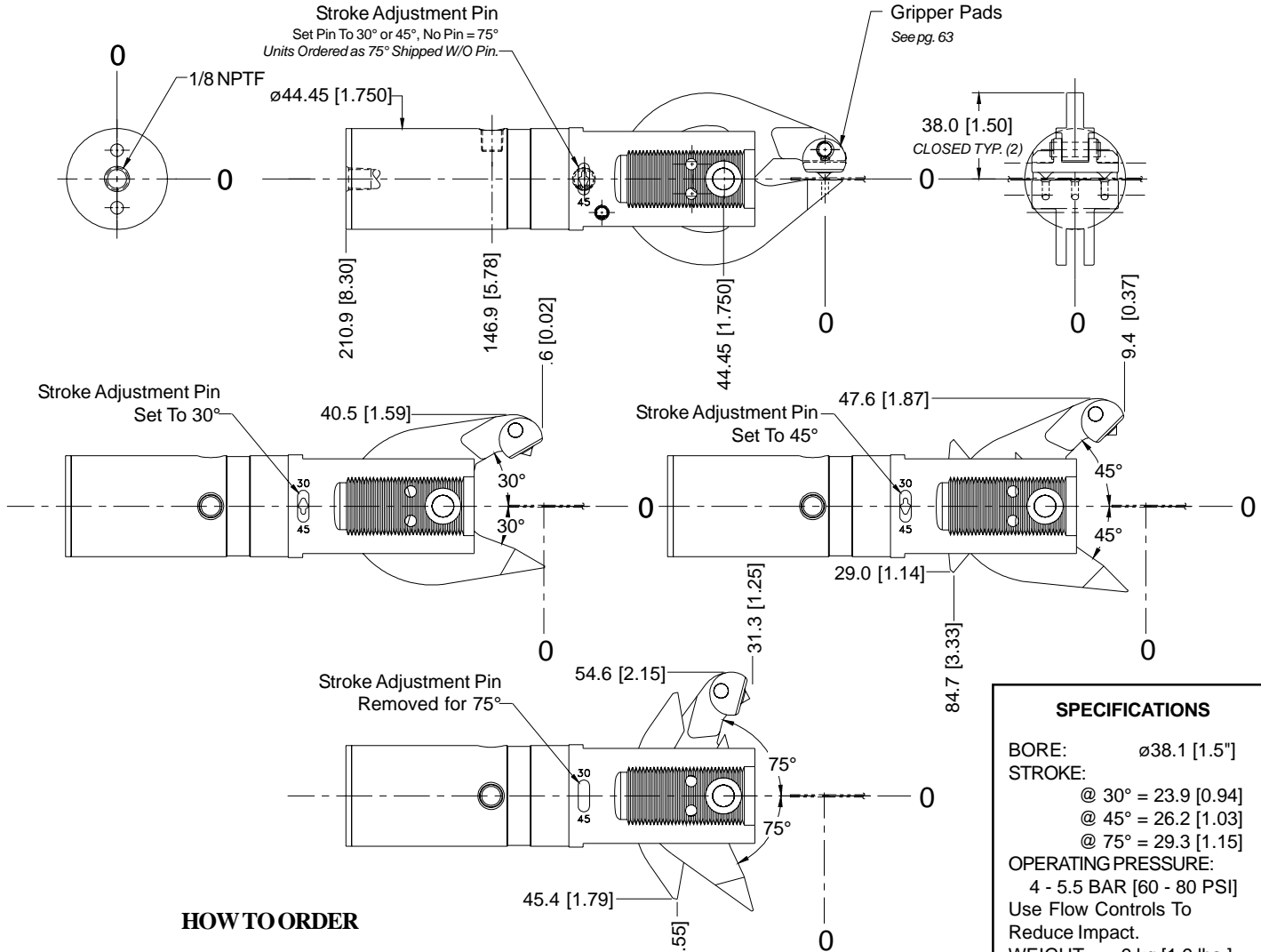
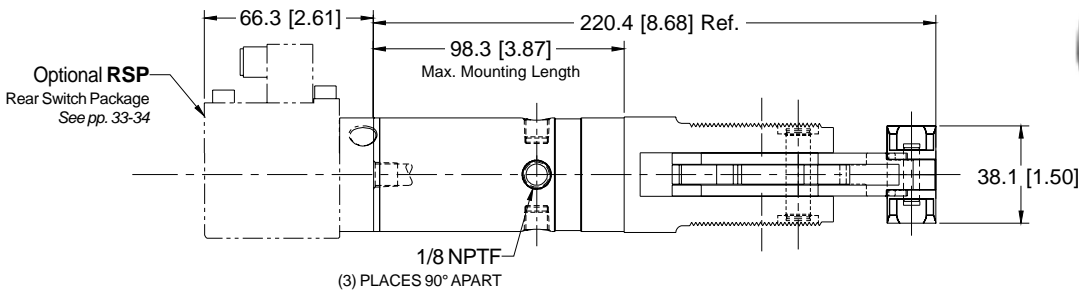
PG38D - 30 - 3 - TM - PS - RSPT-DC

BTM No. 730400A

OPTIONS

PATENTED

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
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
- ARM STYLE
- ARM OPENING (30°, 45°, or 75°)
- 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)

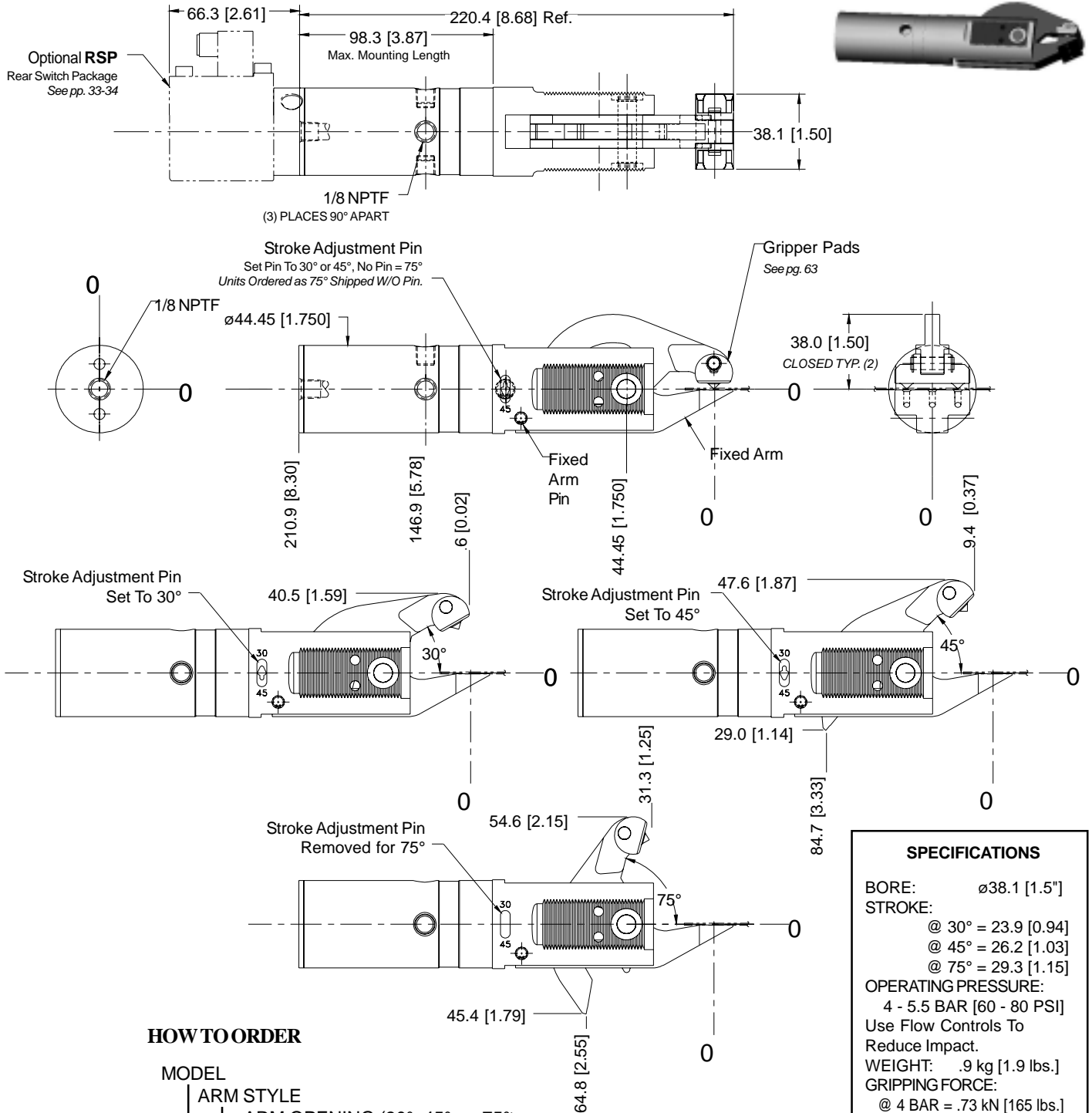
PG38E - 30 - 3 - TM - PS - RSPT-DC

PG-38F ~ Single Opening ~ Double Chisel Arm

PG-38F BTM No. 730600A



CAD TEMPLATES AVAILABLE



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

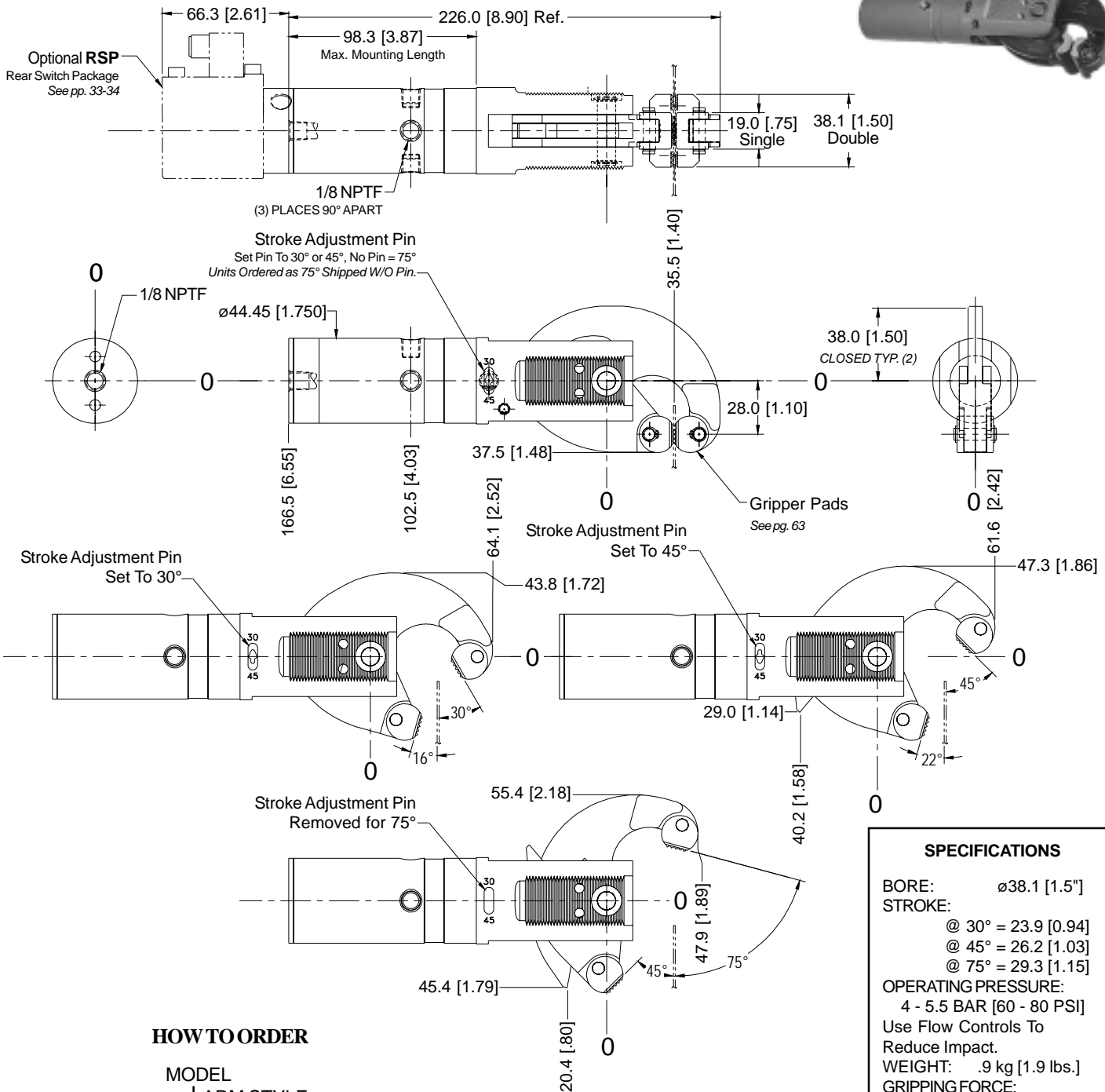
PG38D - 30 - 3 - TM - PS - RSPT-DC

BTM No. 730600A

OPTIONS

PATENTED

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
	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
- 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)

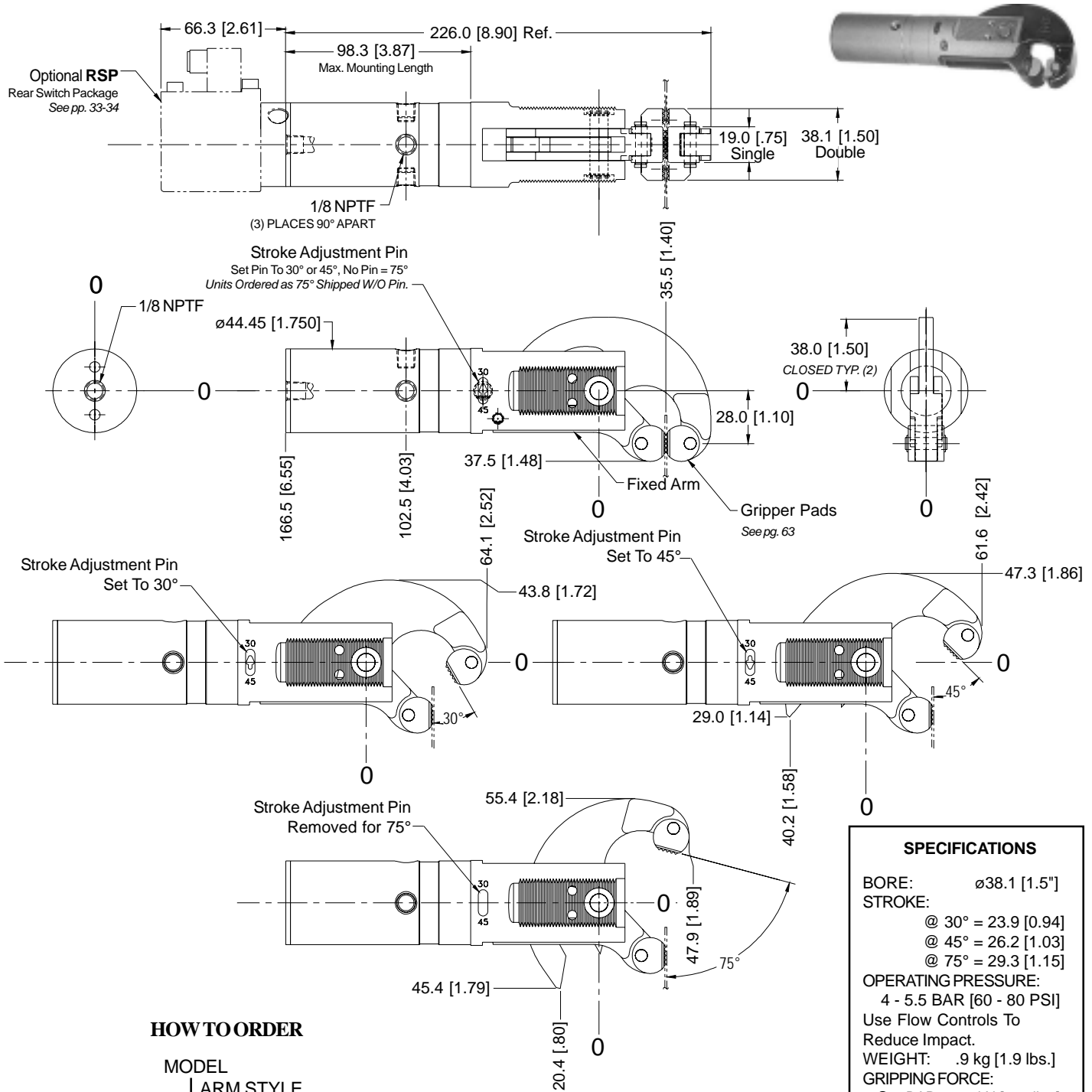
PG38G - 30 - 3 - 3 - TM - RSPT-DC

PG-38H ~ Single Opening ~ Flange Pad Arms

PG-38H BTM No. 734500A



CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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]
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
 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)

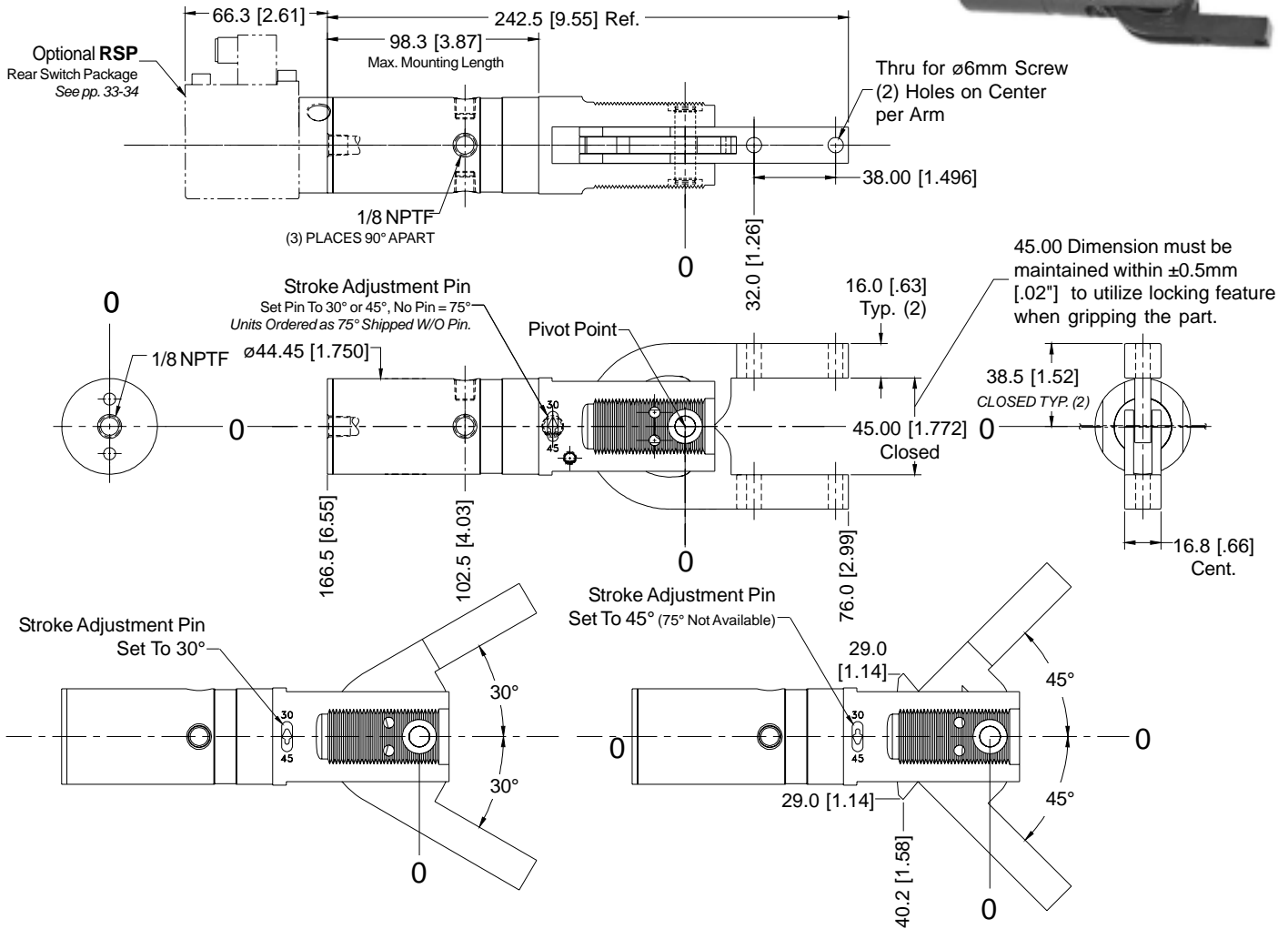
PG38H - 30 - 3 - 3 - TM - RSPT-DC

BTM No. 734500A

OPTIONS

PATENTED

CAD TEMPLATES AVAILABLE



75° Opening Gripper Not Available

SPECIFICATIONS

BORE: ø38.1 [1.5"]
 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
 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)

PG38J - 30 - TM - PS - RSPT-DC

BTM No. 734800A

OPTIONS

GRIPPING FORCE (lbs.) = $4.5 \times \text{Line Pressure (PSI)}$
 Length (In.) From Pivot Point To Center Of Gripping Contact

GRIPPING FORCE (N) = $7300 \times \text{Line Pressure (Bars)}$
 Length (mm) From Pivot Point To Center Of Gripping Contact

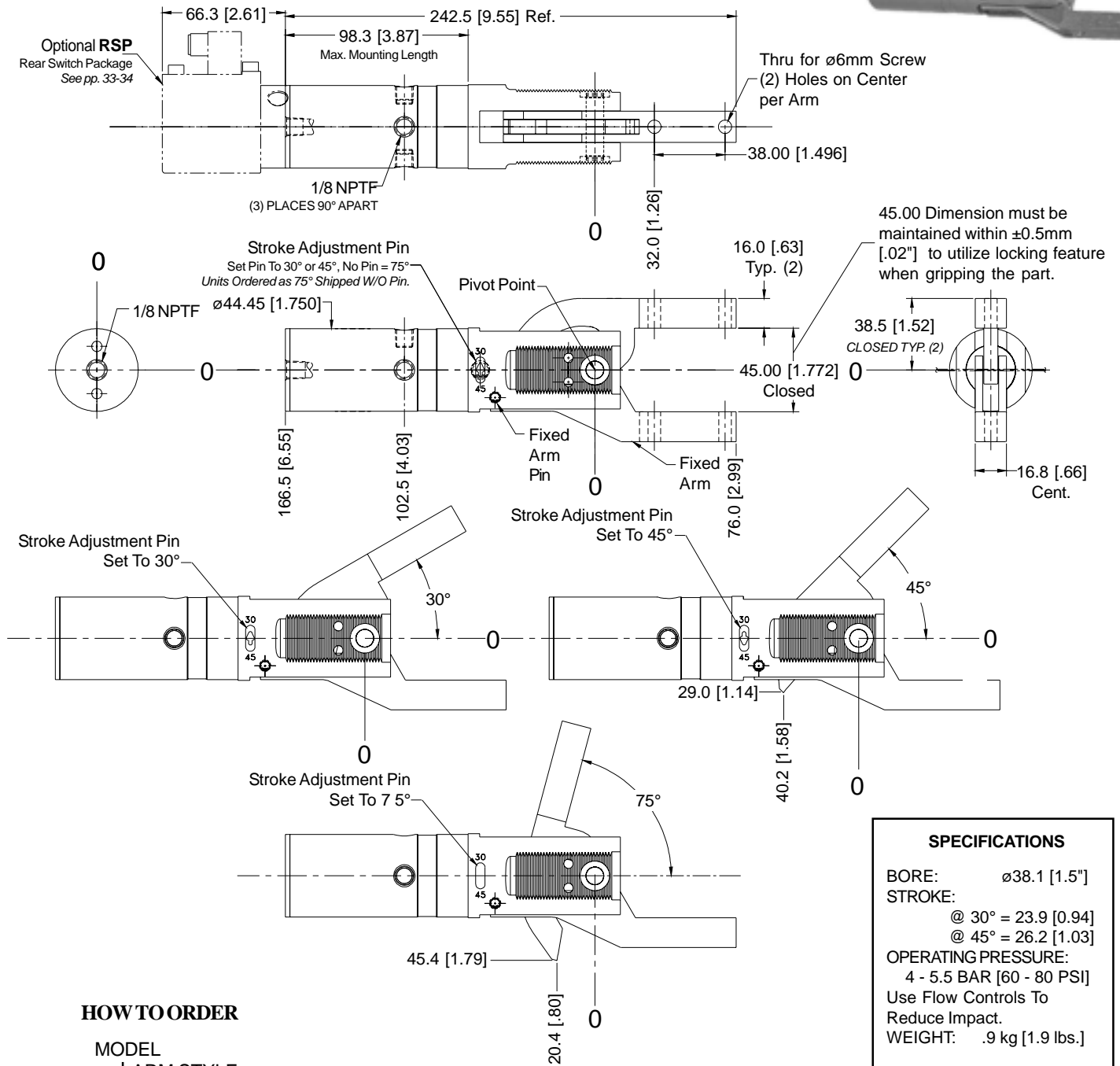
PATENTED

PG-38K ~ Single Opening ~ Adaptable Arms

PG-38K BTM No. 734700A



CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
BORE:	$\varnothing 38.1$ [1.5"]
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
- 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)

PG38K - 30 - TM - PS - RSPT-DC

BTM No. 734700A

OPTIONS

GRIPPING FORCE (lbs.) =	$4.5 \times \text{Line Pressure (PSI)}$ Length (In.) From Pivot Point To Center Of Gripping Contact
GRIPPING FORCE (N) =	$7300 \times \text{Line Pressure (Bars)}$ Length (mm) From Pivot Point To Center Of Gripping Contact

PATENTED

PG-45 Grippers



STANDARD PADS



CUSTOM PADS AVAILABLE

PG-45 Locking Grippers

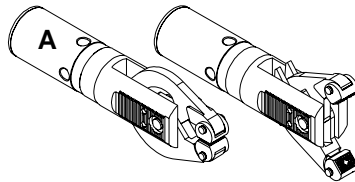
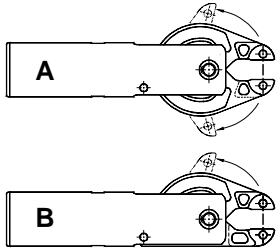


Locking Grip
 Roller finds detent on the cam surface to hold the part if air pressure is lost.

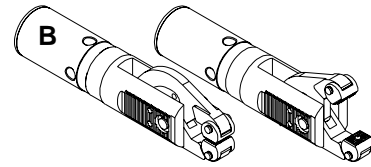


Adjustable Opening
 A single pin adjusts the arm opening to 30° or 45°, remove the pin for 75° opening.

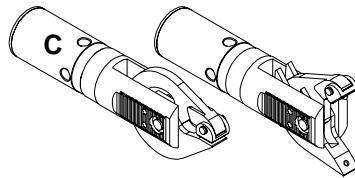
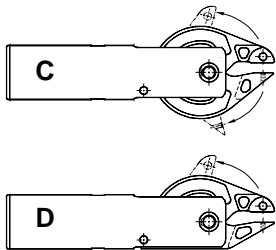
MODELS



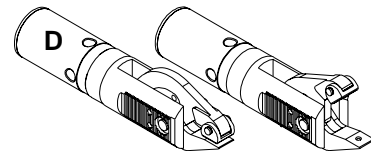
Double Opening
 Pad Arms
 30°, 45° or 75°
 opening per arm
PG-45 A
 pg. 20



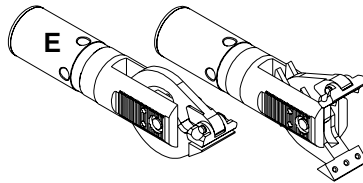
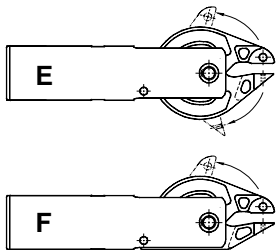
Single Opening
 Fixed Pad Arm
 30°, 45° or 75°
 opening
PG-45 B
 pg. 21



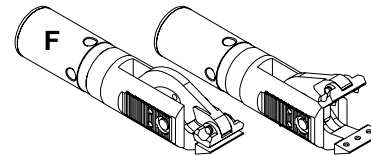
Double Opening
 Single Chisel Arm
 30°, 45° or 75°
 opening per arm
PG-45 C
 pg. 22



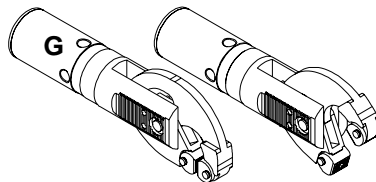
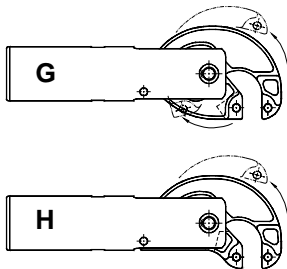
Single Opening Fixed
 Single Chisel Arm
 30°, 45° or 75°
 opening
PG-45 D
 pg. 23



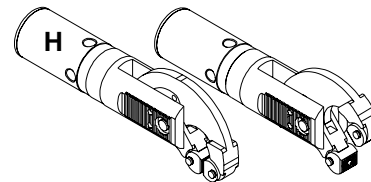
Double Opening
 Double Chisel Arm
 30°, 45° or 75°
 opening per arm
PG-45 E
 pg. 24



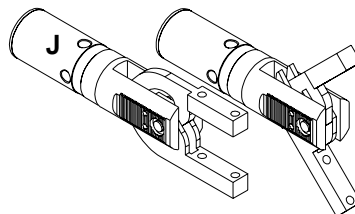
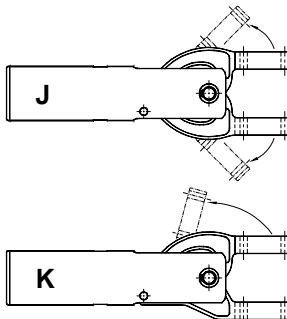
Single Opening Fixed
 Double Chisel Arm
 30°, 45° or 75°
 opening
PG-45 F
 pg. 25



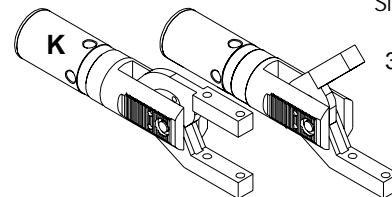
Double Opening
 Flange Pad Arms
 30°, 45° or 75°
 upper arm opening
 16°, 22° or 45°
 lower arm opening
PG-45 G
 pg. 26



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



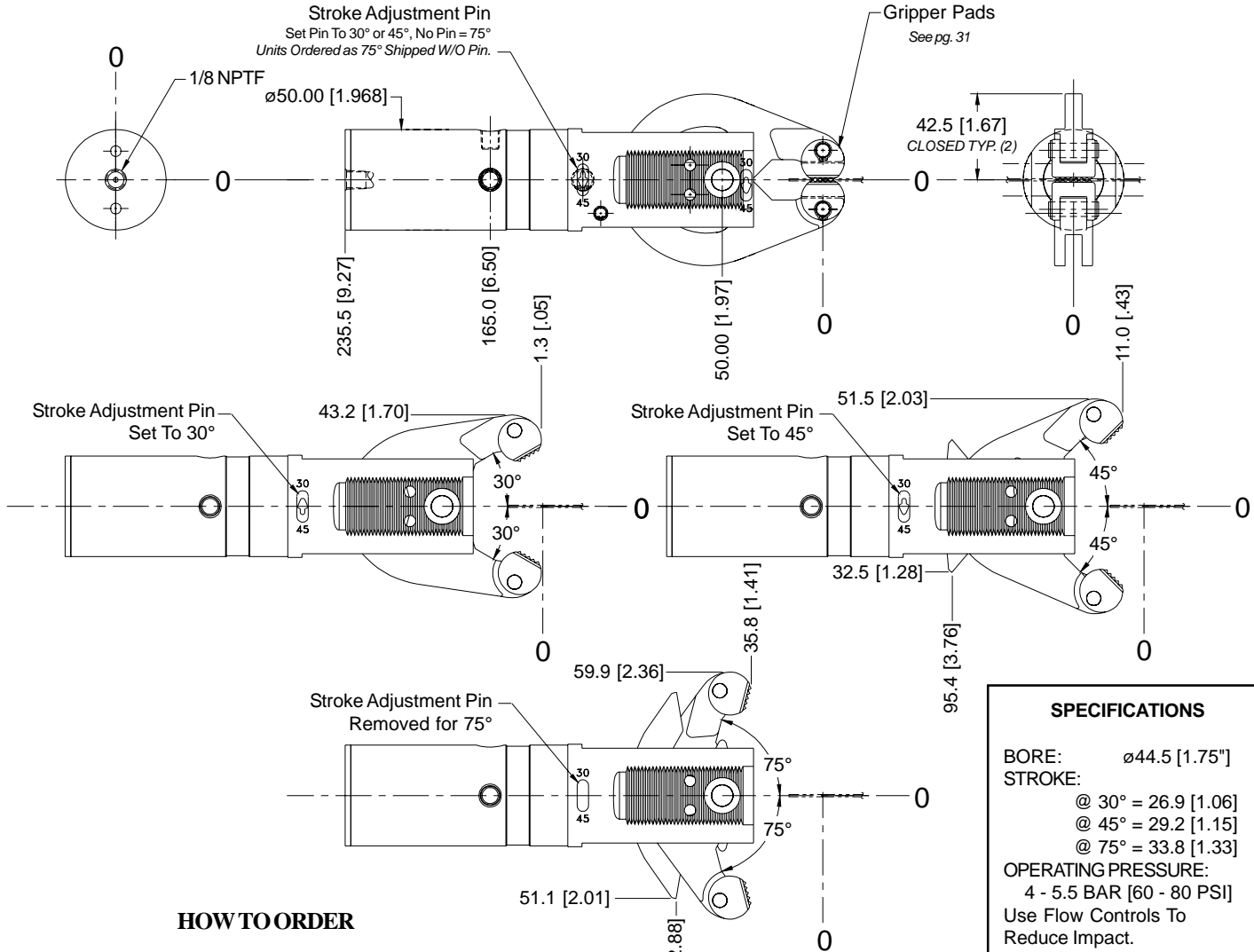
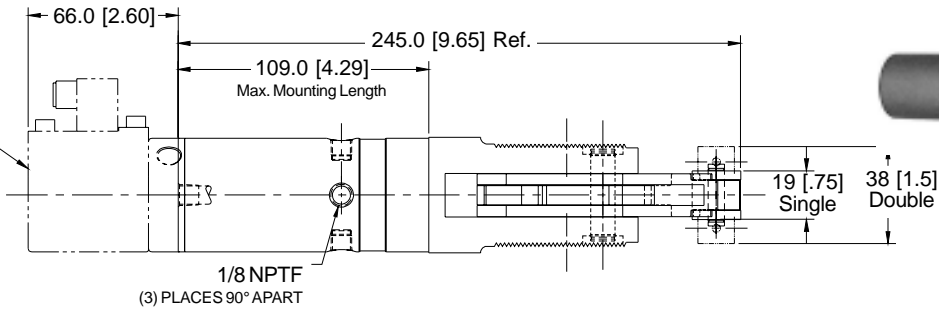
Double Opening
 Adaptable Arm
 30° or 45°
 opening per arm
PG-45 J
 pg. 28



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

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)
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)

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

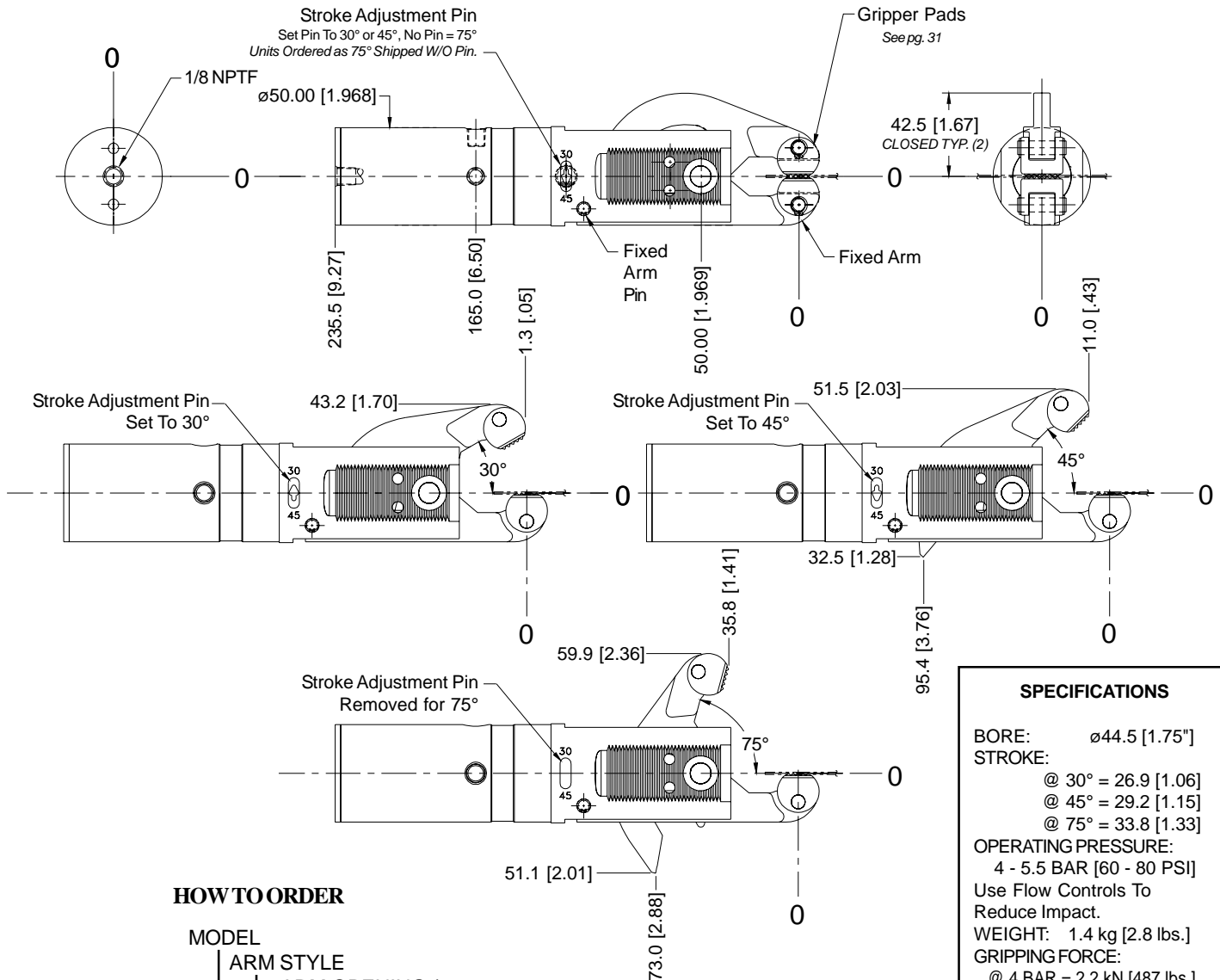
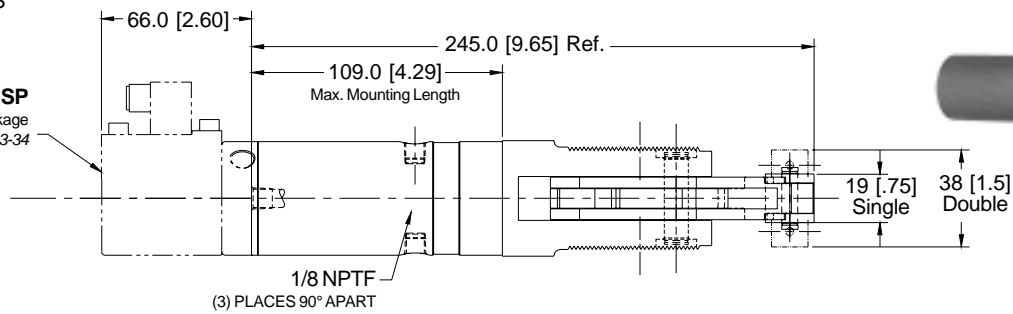
PG-45B ~ Single Opening ~ Pad Arms

PG-45B BTM No. 728000A



CAD TEMPLATES
AVAILABLE

Optional RSP
Rear Switch Package
See pp. 33-34



SPECIFICATIONS

BORE: $\varnothing 44.5 [1.75"]$
 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)
 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

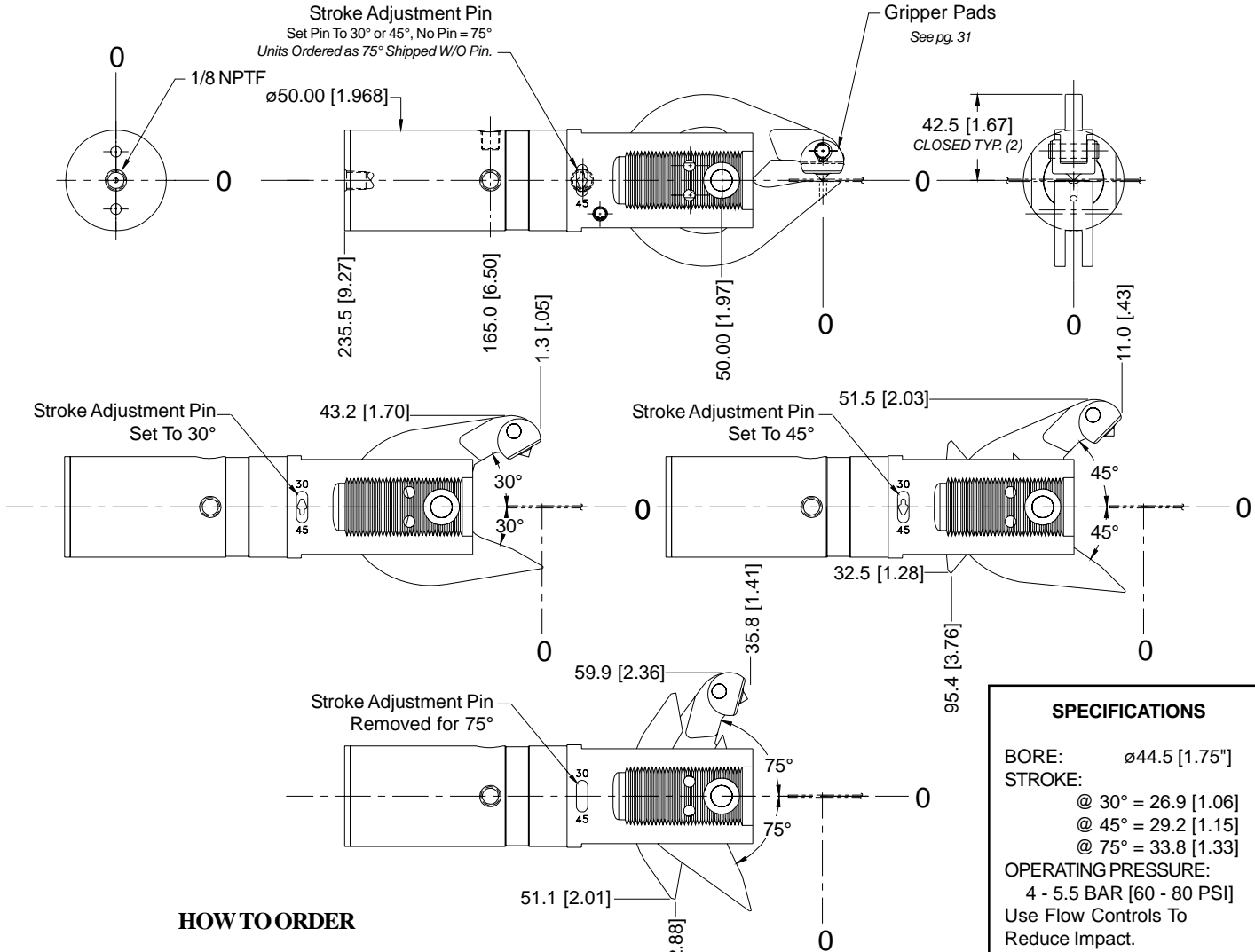
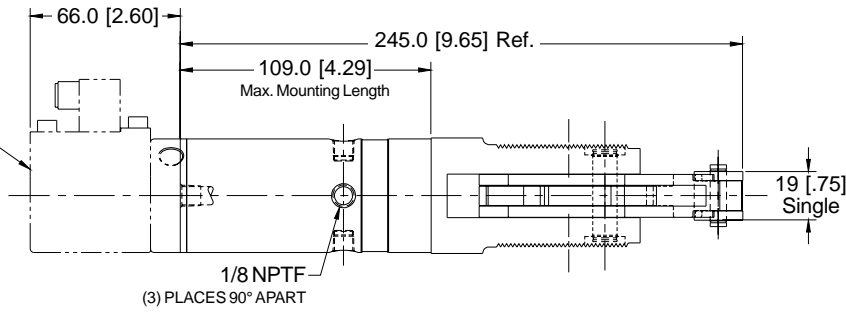
BTM No. 728000A

OPTIONS

PATENTED

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)
PART STOPS (pg. 6)
REAR SWITCH PACKAGE (pp. 33-34)
SUPPLY VOLTAGE (AC or DC)

PG45C - 30 - 3 - TM - PS - RSPT-DC

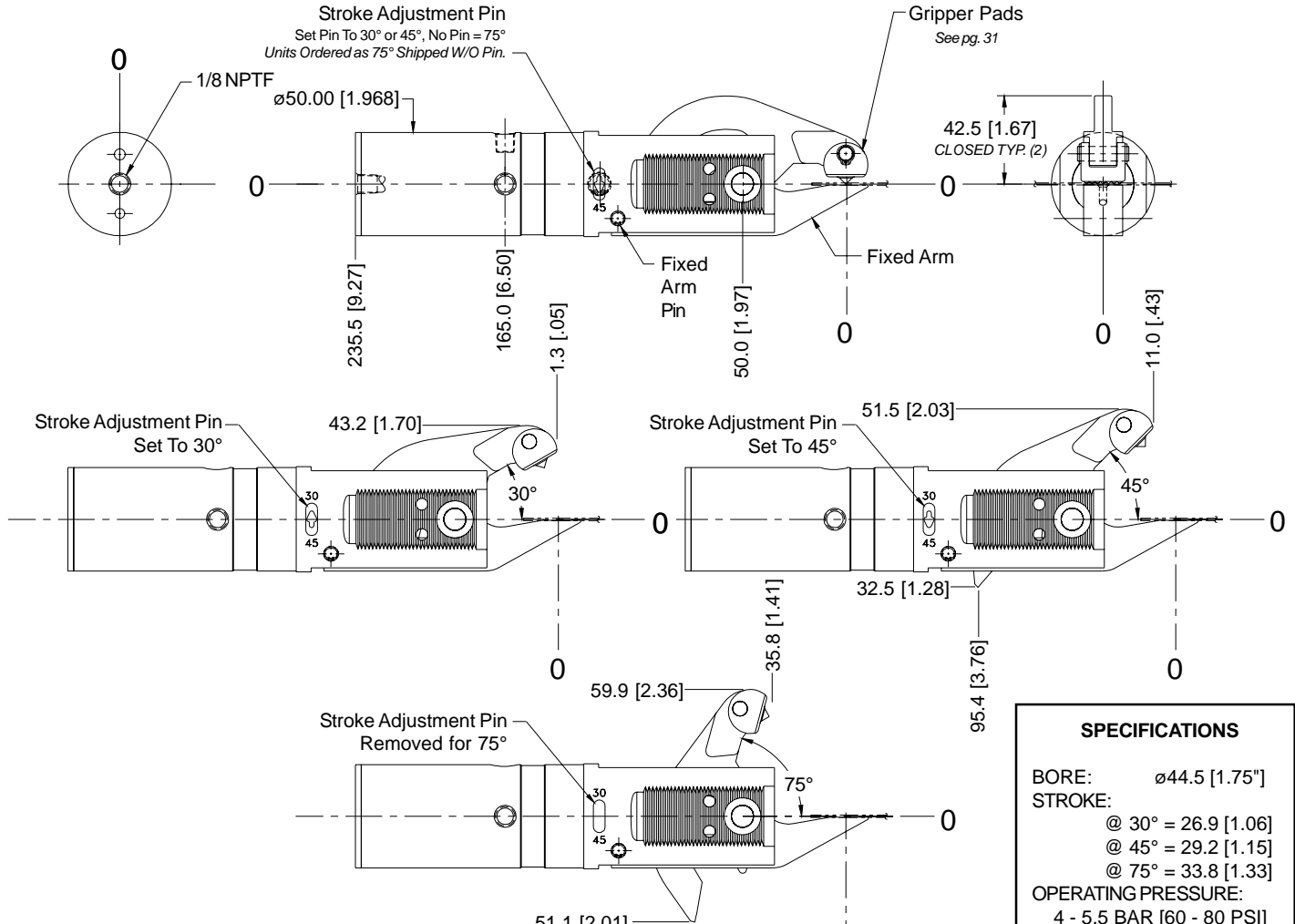
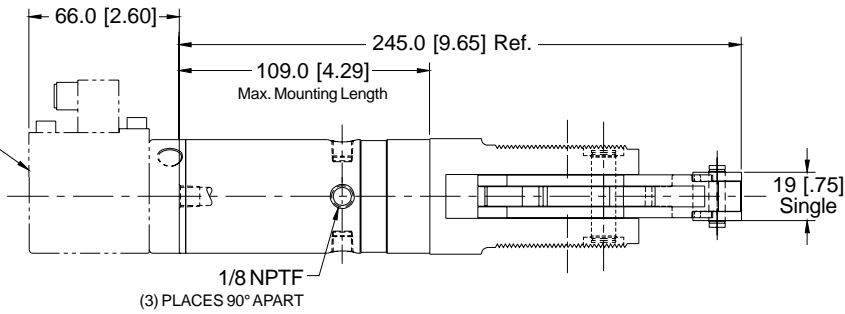
PG-45D ~ Single Opening ~ Single Chisel Arm

PG-45D BTM No. 728200A



CAD TEMPLATES
AVAILABLE

Optional RSP
Rear Switch Package
See pp. 33-34



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)
- PART STOPS (pg. 6)
- REAR SWITCH PACKAGE (pp. 33-34)
- SUPPLY VOLTAGE (AC or DC)

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

BTM No. 728200A

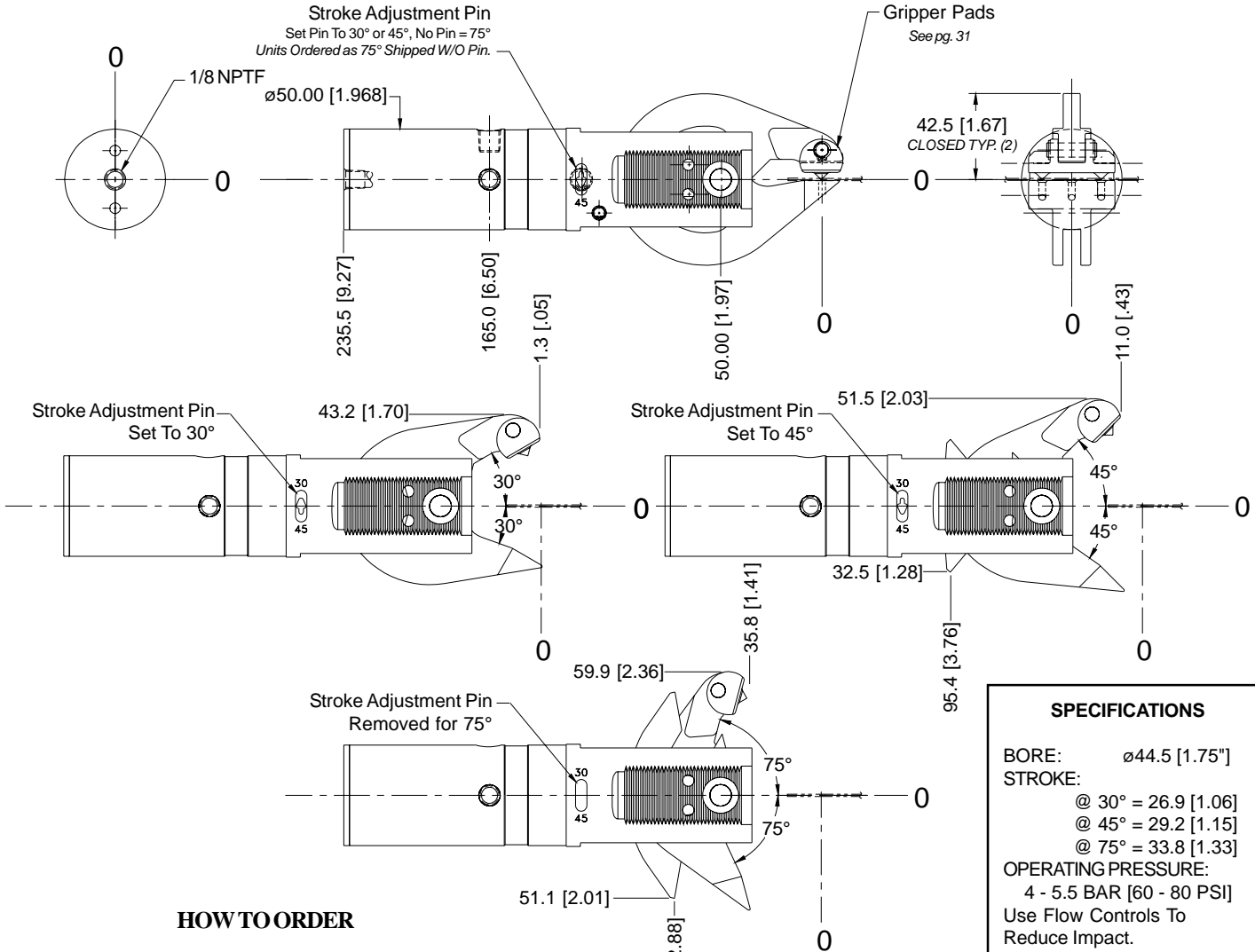
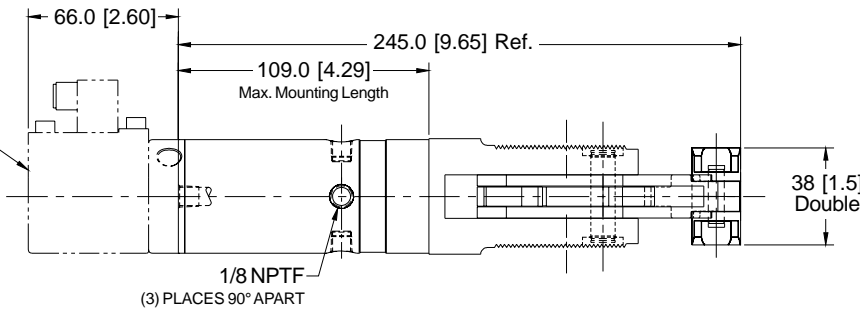
OPTIONS

PATENTED

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.]

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)
 PART STOPS (pg. 6)
 REAR SWITCH PACKAGE (pp. 33-34)
 SUPPLY VOLTAGE (AC or DC)

PG45E - 30 - 3 - TM - PS - RSPT-DC

BTM No. 728500A

OPTIONS

PATENTED

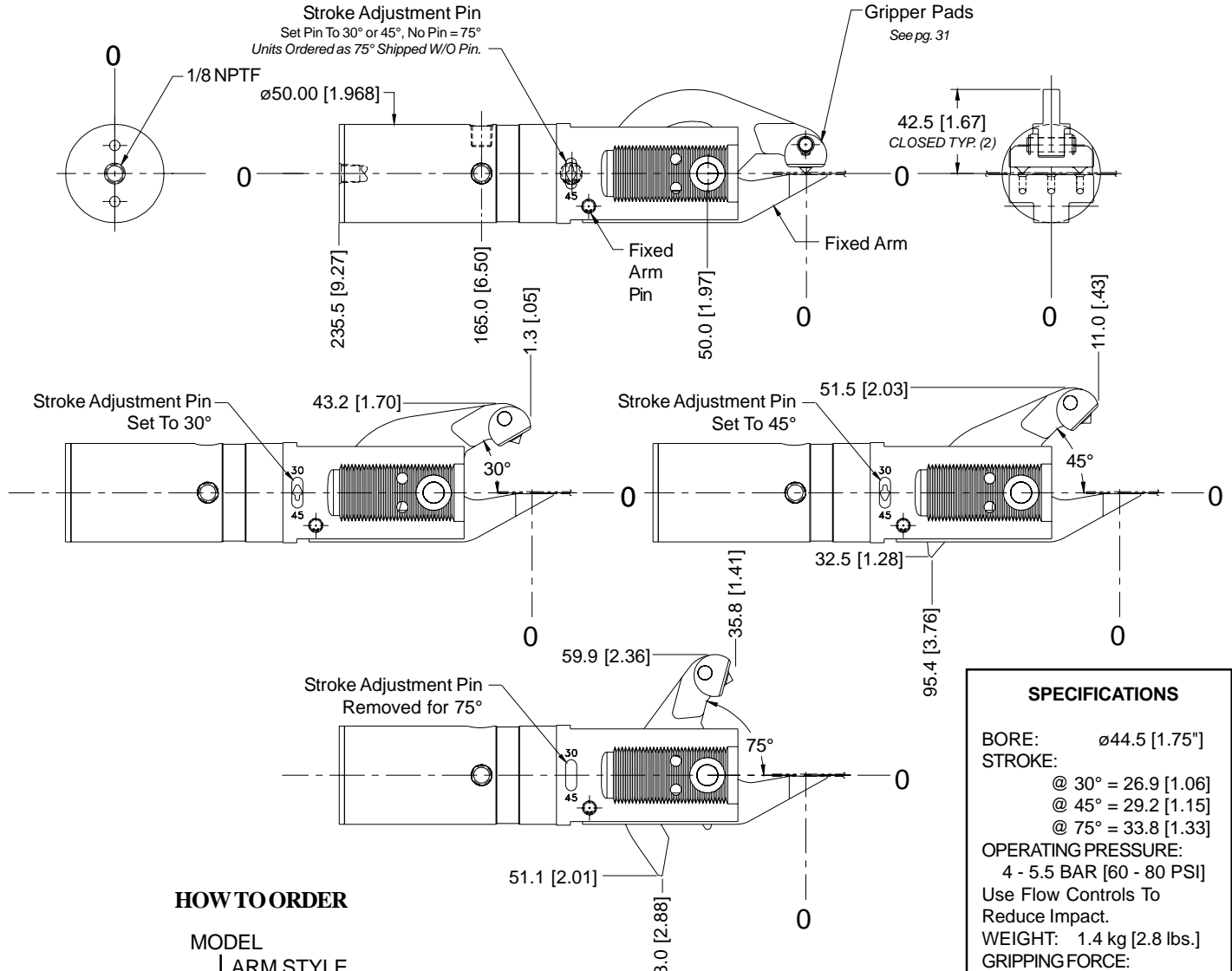
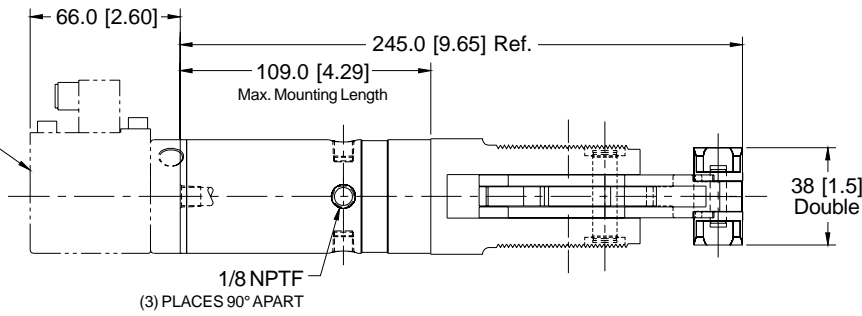
PG-45F ~ Single Opening ~ Double Chisel Arm

PG-45F BTM No. 728400A



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)
- PART STOPS (pg. 6)
- REAR SWITCH PACKAGE (pp. 33-34)
- SUPPLY VOLTAGE (AC or DC)

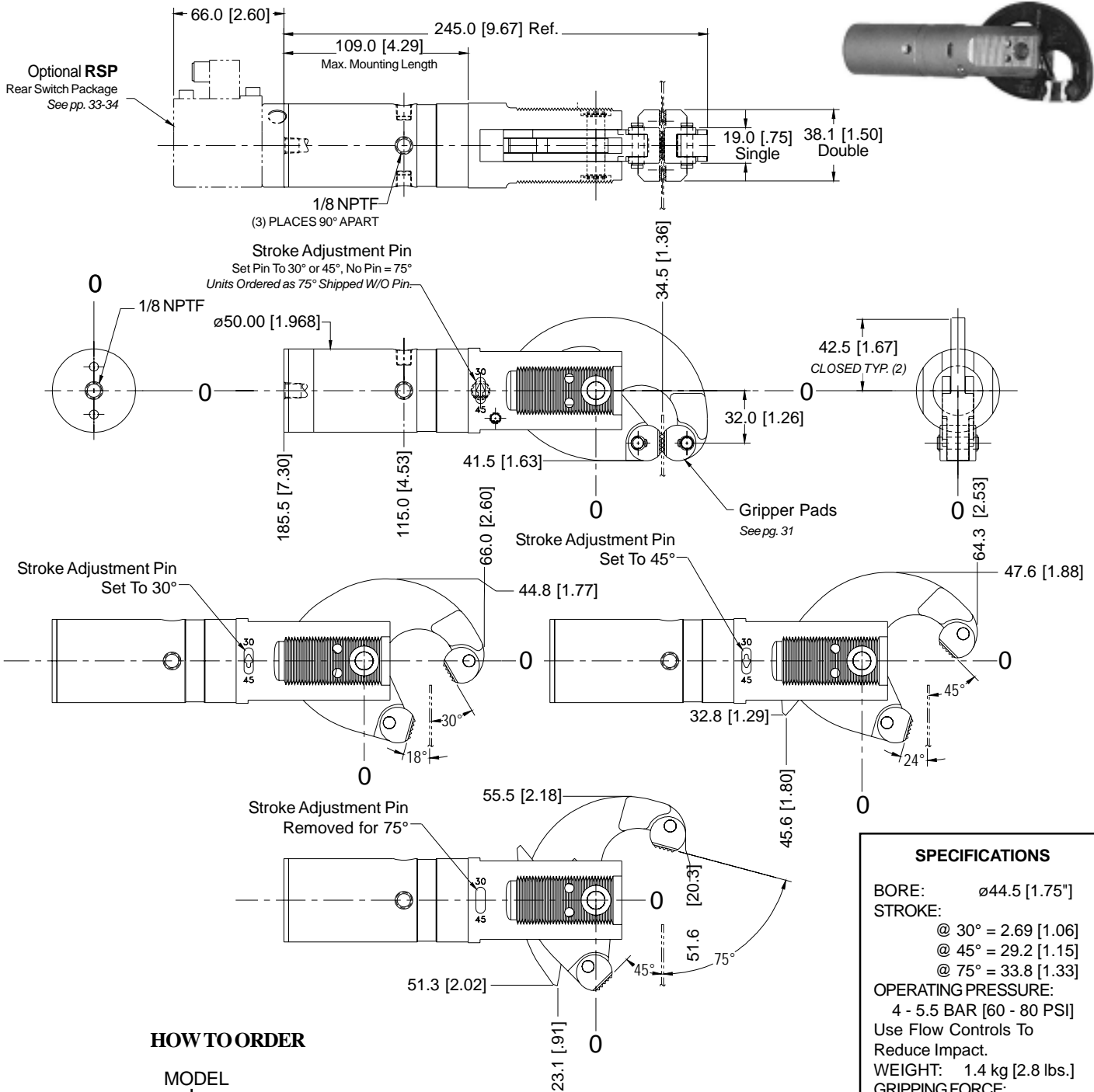
PG45F - 30 - 3 - TM - PS - RSPT-DC

BTM No. 728400A

OPTIONS

PATENTED

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
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.]

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)

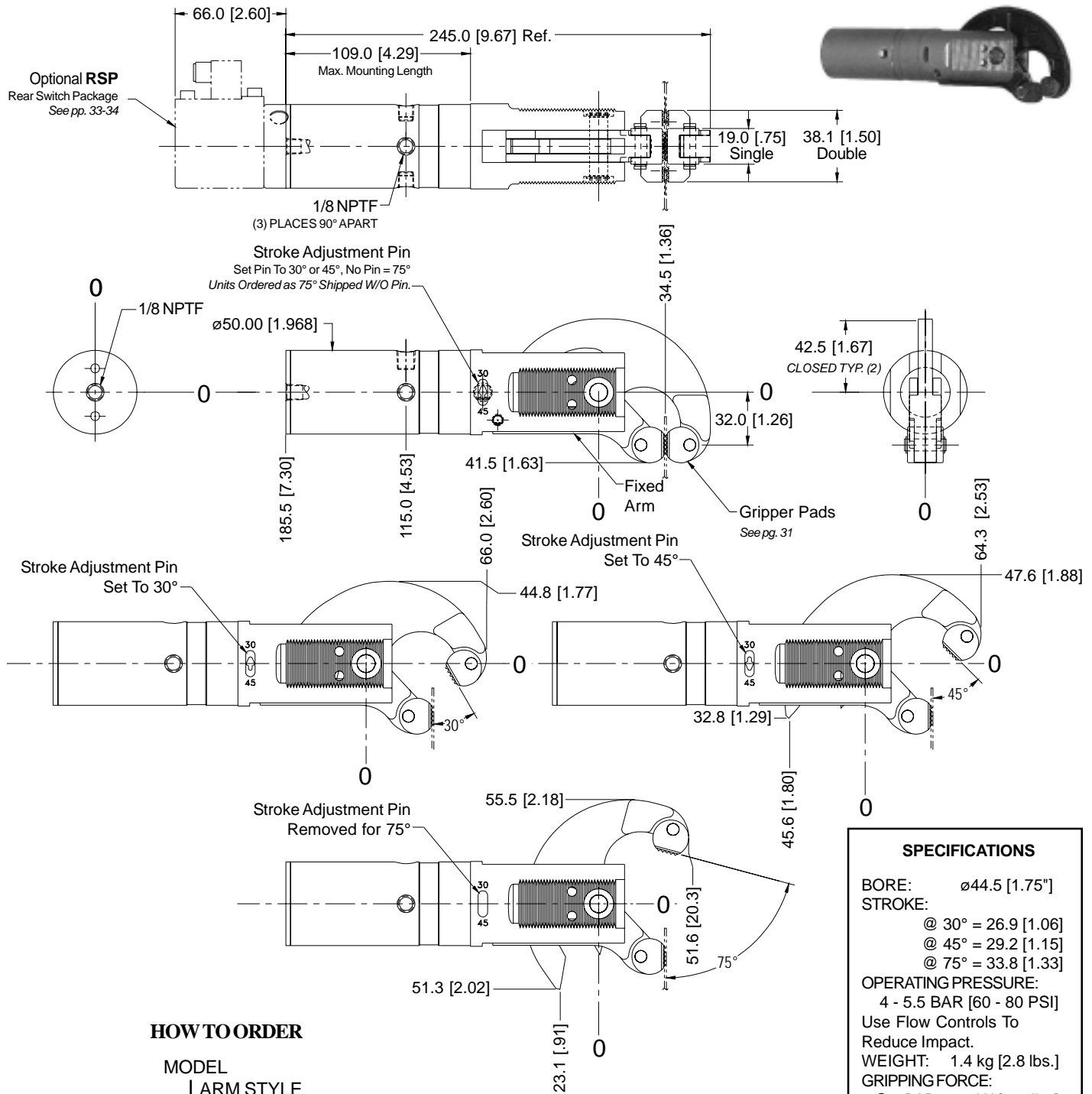
PG45G - 30 - 3 - 3 - TM - PS - RSPT-DC

PG-45H ~ Single Opening ~ Flange Pad Arms

PG-45H BTM No. 733000A



CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
BORE:	∅44.5 [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)
- 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)

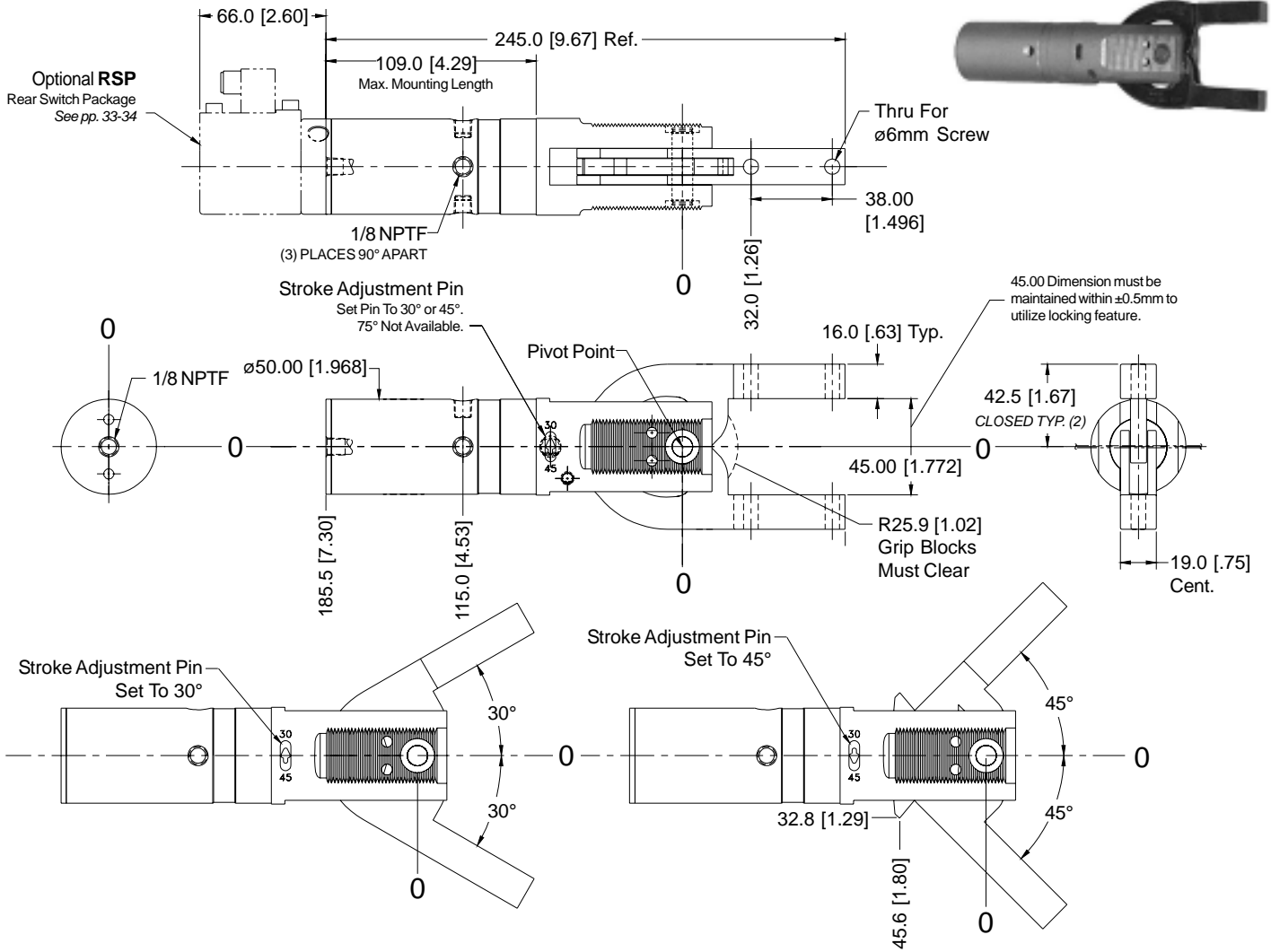
PG45H - 30 - 3 - 3 - TM - PS - RSPT-DC

BTM No. 733000A

OPTIONS

PATENTED

CAD TEMPLATES AVAILABLE



75° Opening Gripper Not Available

SPECIFICATIONS

BORE: $\varnothing 44.5$ [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.]

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

GRIPPING FORCE (lbs.) = $15 \times$ Line Pressure (PSI) \times Length (In.) From Pivot Point To Center Of Gripping Contact

GRIPPING FORCE (N) = $25,000 \times$ Line Pressure (Bars) \times Length (mm) From Pivot Point To Center Of Gripping Contact

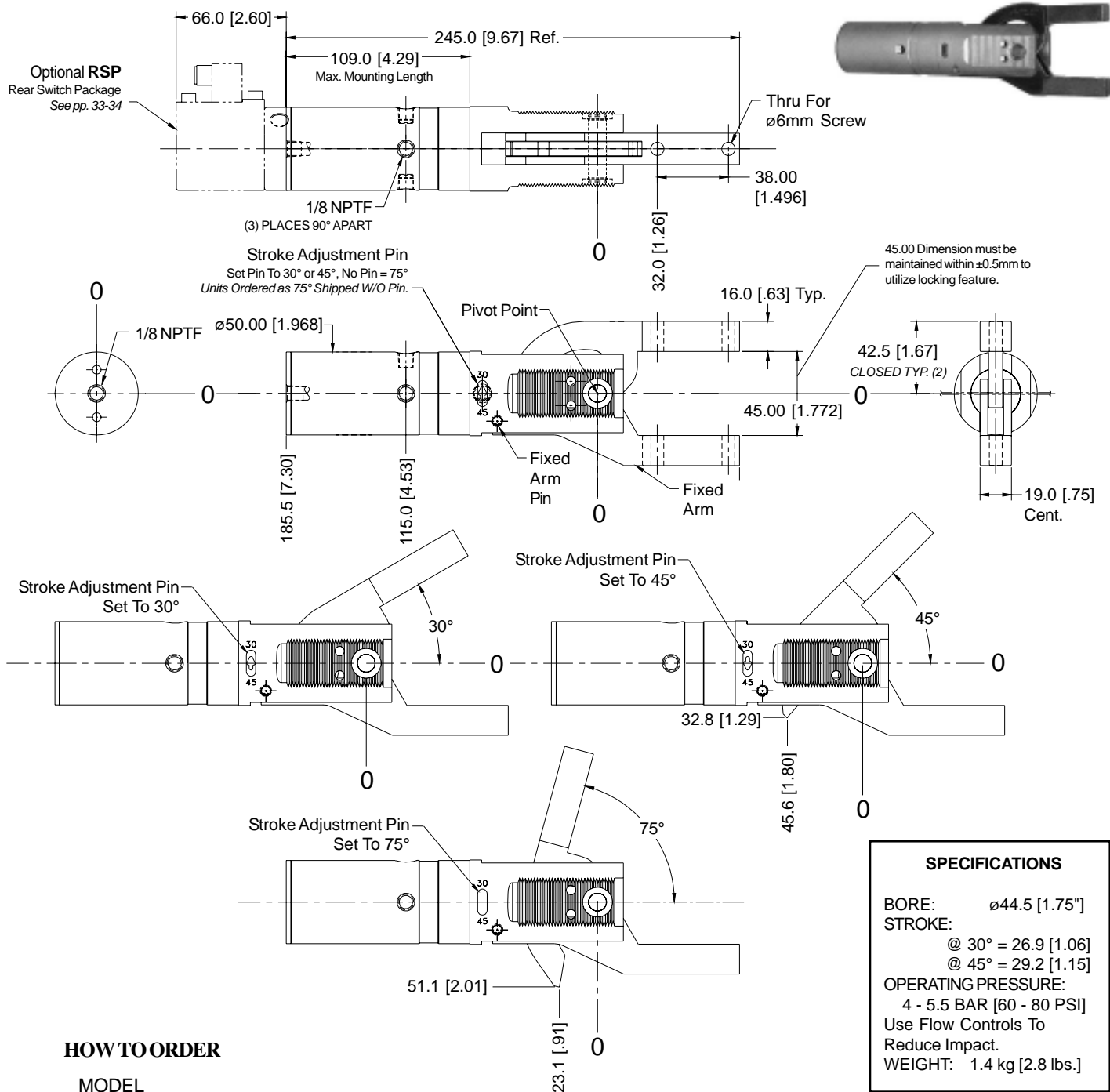
PATENTED

PG-45K ~ Single Opening ~ Adaptable Arms

PG-45K BTM No. 734900A



CAD TEMPLATES 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. 734900A

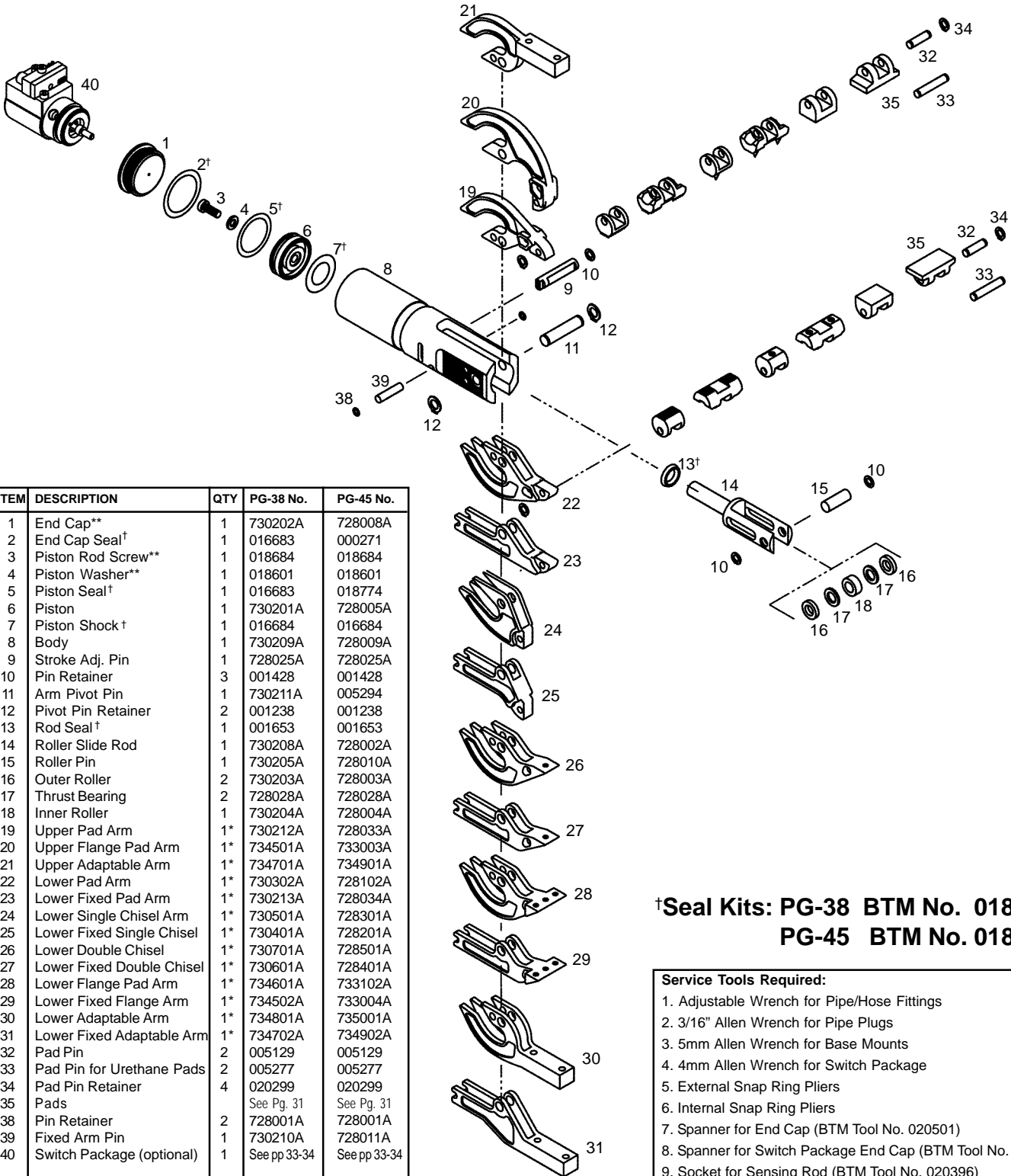
OPTIONS

PATENTED

SPECIFICATIONS

BORE: $\varnothing 44.5 [1.75"]$
 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.) = $15 \times$ Line Pressure (PSI)
 Length (In.) From Pivot Point To
 Center Of Gripping Contact
 GRIPPING FORCE (N) = $25,000 \times$ Line Pressure (Bars)
 Length (mm) From Pivot Point To
 Center Of Gripping Contact



ITEM	DESCRIPTION	QTY	PG-38 No.	PG-45 No.
1	End Cap**	1	730202A	728008A
2	End Cap Seal†	1	016683	000271
3	Piston Rod Screw**	1	018684	018684
4	Piston Washer**	1	018601	018601
5	Piston Seal†	1	016683	018774
6	Piston	1	730201A	728005A
7	Piston Shock †	1	016684	016684
8	Body	1	730209A	728009A
9	Stroke Adj. Pin	1	728025A	728025A
10	Pin Retainer	3	001428	001428
11	Arm Pivot Pin	1	730211A	005294
12	Pivot Pin Retainer	2	001238	001238
13	Rod Seal †	1	001653	001653
14	Roller Slide Rod	1	730208A	728002A
15	Roller Pin	1	730205A	728010A
16	Outer Roller	2	730203A	728003A
17	Thrust Bearing	2	728028A	728028A
18	Inner Roller	1	730204A	728004A
19	Upper Pad Arm	1*	730212A	728033A
20	Upper Flange Pad Arm	1*	734501A	733003A
21	Upper Adaptable Arm	1*	734701A	734901A
22	Lower Pad Arm	1*	730302A	728102A
23	Lower Fixed Pad Arm	1*	730213A	728034A
24	Lower Single Chisel Arm	1*	730501A	728301A
25	Lower Fixed Single Chisel	1*	730401A	728201A
26	Lower Double Chisel	1*	730701A	728501A
27	Lower Fixed Double Chisel	1*	730601A	728401A
28	Lower Flange Pad Arm	1*	734601A	733102A
29	Lower Fixed Flange Arm	1*	734502A	733004A
30	Lower Adaptable Arm	1*	734801A	735001A
31	Lower Fixed Adaptable Arm	1*	734702A	734902A
32	Pad Pin	2	005129	005129
33	Pad Pin for Urethane Pads	2	005277	005277
34	Pad Pin Retainer	4	020299	020299
35	Pads		See Pg. 31	See Pg. 31
38	Pin Retainer	2	728001A	728001A
39	Fixed Arm Pin	1	730210A	728011A
40	Switch Package (optional)	1	See pp 33-34	See pp 33-34

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

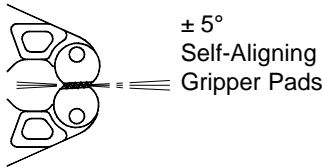
Service Tools Required:

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)

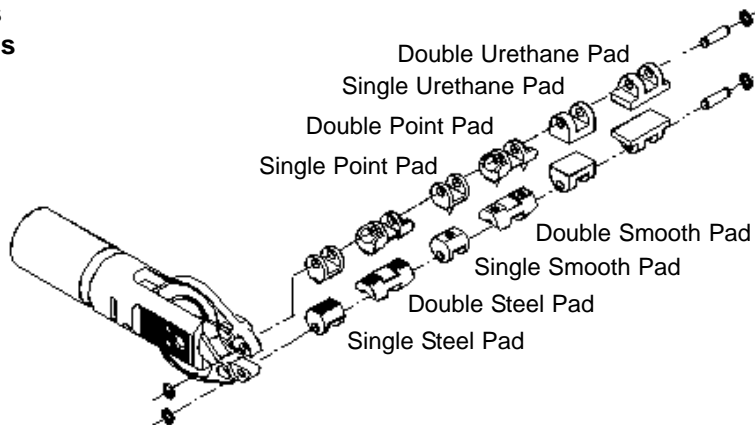
** Details 1, 3 & 4 are omitted when gripper is fitted with switch package.

* 1 Upper & 1 Lower Arm per unit.

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 <i>For Material Thickness See Above</i> 1 - No. 728039A [P] 2 - No. 728040A [W] 19 - No. 728056A [Y] Use in pairs or w/ Point Pads	Double Steel Pads <i>For Material Thickness See Above</i> 3 - No. 728037A [P] 4 - No. 728038A [W] 20 - No. 728055A [Y] Use in pairs or w/ Point Pads	Single Point Pads <i>For Material Thickness See Above</i> 5 - No. 728043A [P] 6 - No. 728044A [W] Use w/ Steel or Smooth Pads or Chisel	Double Point Pads <i>For Material Thickness See Above</i> 7 - No. 728041A [P] 8 - No. 728042A [W] Use w/ Steel or Smooth Pads or Chisel
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 <i>For Material Thickness See Above</i> 11 - No. 728047A [P] 12 - No. 728048A [W] 21 - No. 728057A [Y] Use in pairs or w/ Point Pads	Double Smooth Pads <i>For Material Thickness See Above</i> 13 - No. 728049A [P] 14 - No. 728050A [W] 22 - No. 728058A [Y]

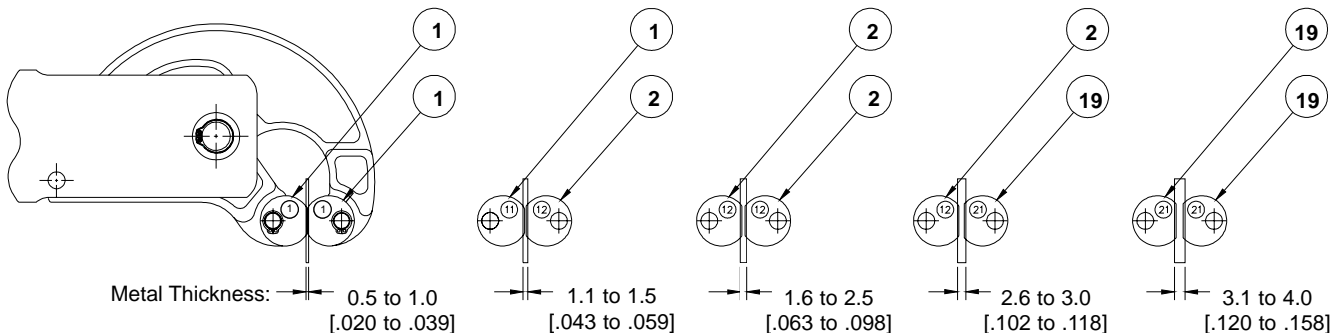
Selection of Gripper Pad Combinations for Metal Thickness

Pad No. {

- ① Single Steel Pad (728039A) ~ "A" = 13.08mm [.515"]
- ② Single Steel Pad (728040A) ~ "A" = 12.37mm [.487"]
- ⑱ Single Steel Pad (728056A) ~ "A" = 11.66mm [.459"]

Gripper Pad
"A" Dimension

NOTE: URETHANE PADS WORK FOR ALL METAL THICKNESS COMBINATIONS

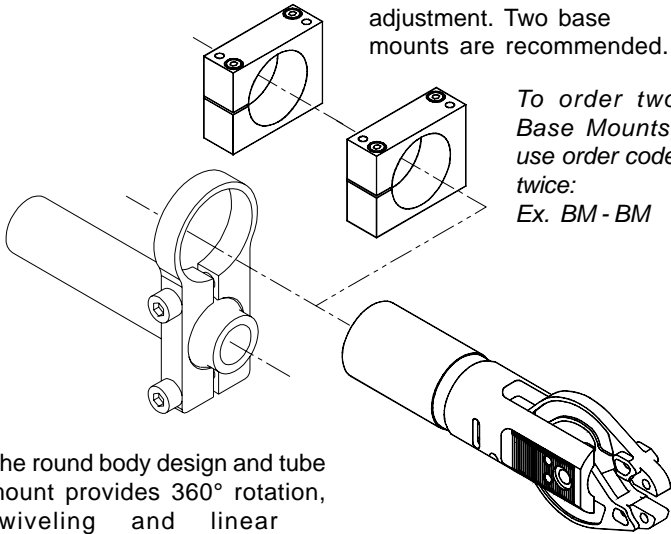


Gripper Pad Color Coding:	Metal Thickness	Single Steel	Double Steel	Single Point	Double Point	Single Smooth	Double Smooth	Color
[P]=Pink	0.5 to 1.0 [.020 to .039]	1+1	3+3	5+11	7+13	11+11	13+13	Pink
[W]=White	1.1 to 1.5 [.043 to .059]	1+2	3+4	5+12	7+14	11+12	13+14	Pink+White
[Y]=Yellow	1.6 to 2.5 [.063 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

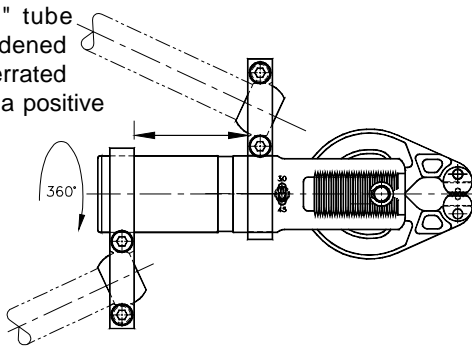
Gripper Mounts

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

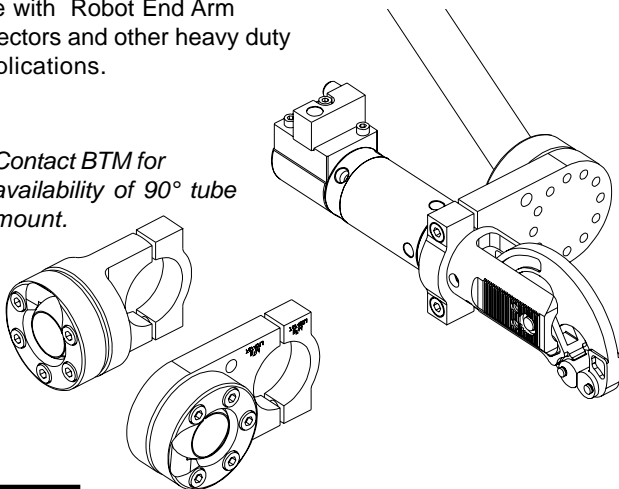


The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position.



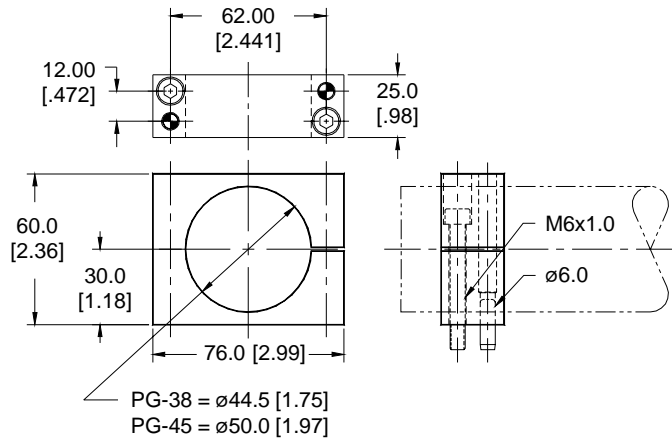
The 1 1/4" tube mount is available in 90° and in-line configurations. It is ideal for use with Robot End Arm Effectors and other heavy duty applications.

Contact BTM for availability of 90° tube mount.



(BM) Base Mount

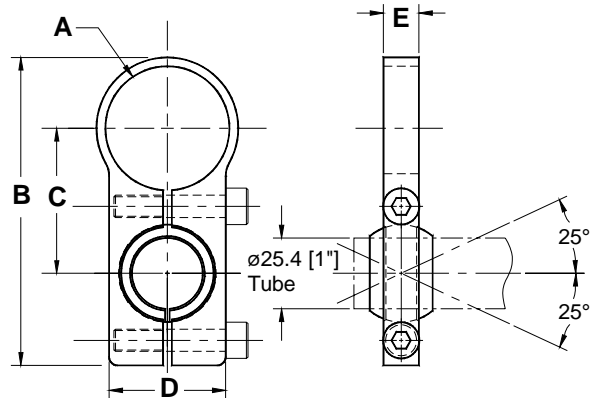
PG-38 ~ No. 730200C • PG-45 ~ No. 728000E



(TM) Tube Mount

PG-38 ~ No. 708700D

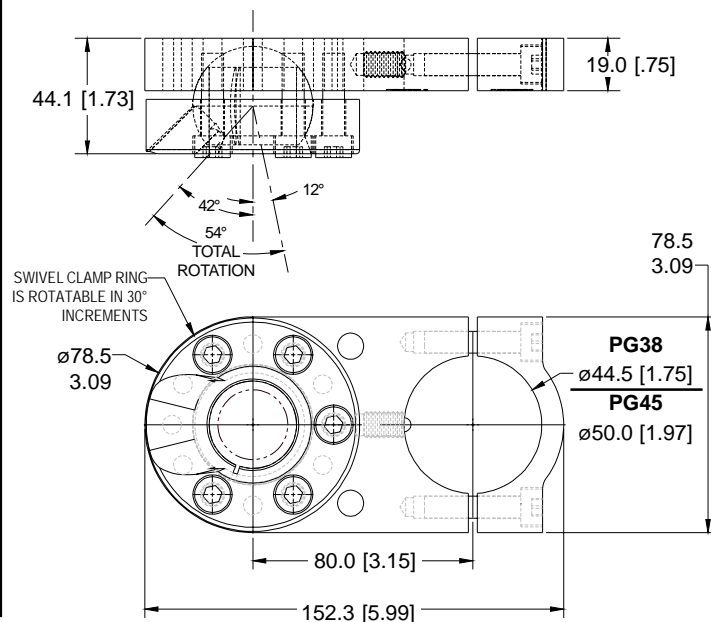
• PG-45 ~ No. 728000D



	A	B	C	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]

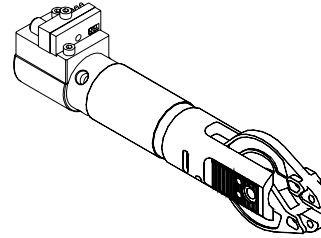
(HTM) 1 1/4" Tube Mount

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



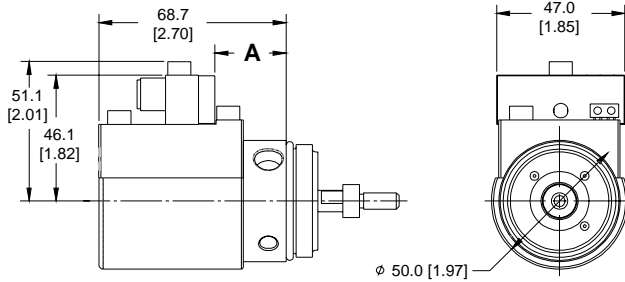
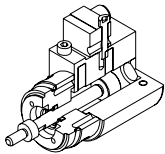
Position Sensors

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



RSPT-DC

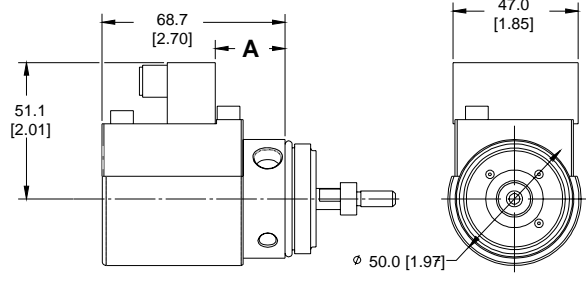
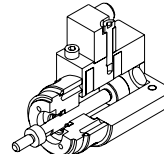
Rear Switch Package - Turck DC
(Ni2-Q6.5-AP6-0.20-FS4.4X3-S304)
for PG-38 ~ No. 753700B
for PG-45 ~ No. 753600B



	A
PG-38 w/DC	26.2 [1.03]
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



	A
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

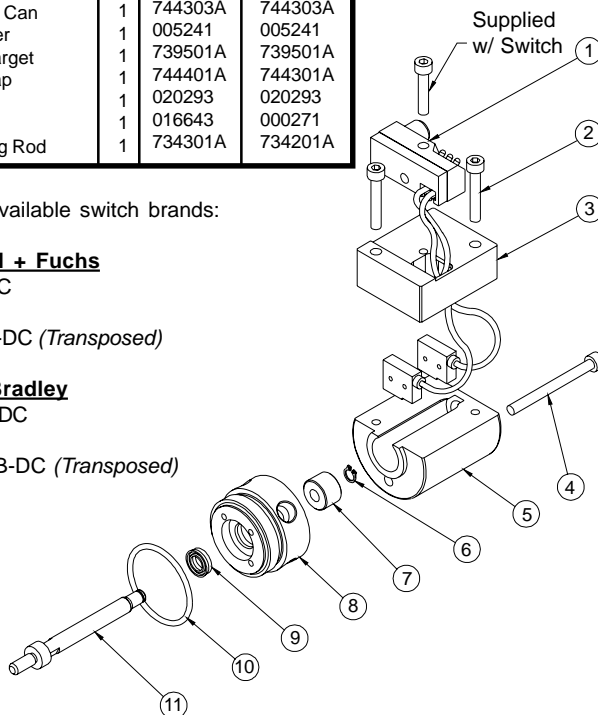
*Other available switch brands:

Pepperl + Fuchs

RSPP-DC
or
TRSP-DC (*Transposed*)

Allen Bradley

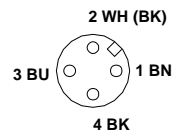
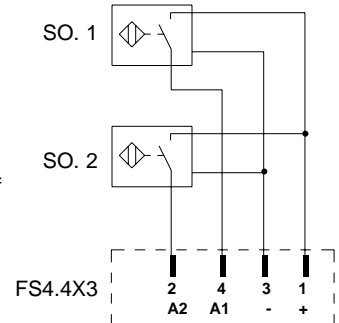
RSPAB-DC
or
TRSPAB-DC (*Transposed*)



DC ~ Status Controller

Two Sensors
Supply Voltage: 10-30 VDC
Load Current: $\leq 150\text{mA}$
Single Connector ~ Conprox®

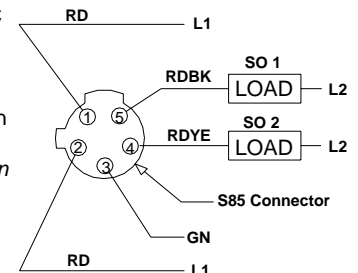
SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed), order: TRSPT-DC

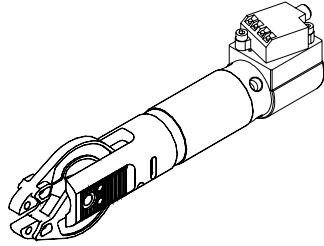


AC ~ Status Controller

Two Sensors
Supply Voltage: 20-250 VAC
Load Current: $\leq 100\text{mA}$
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

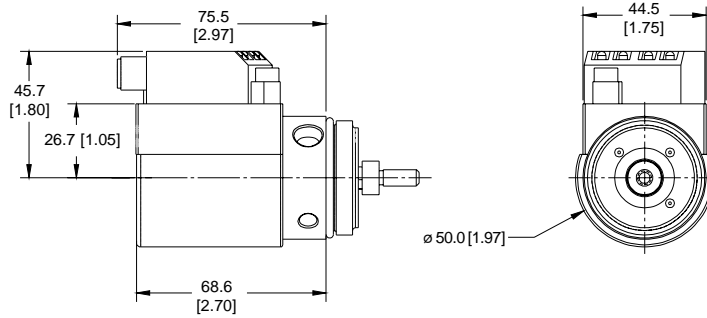




Position Sensors

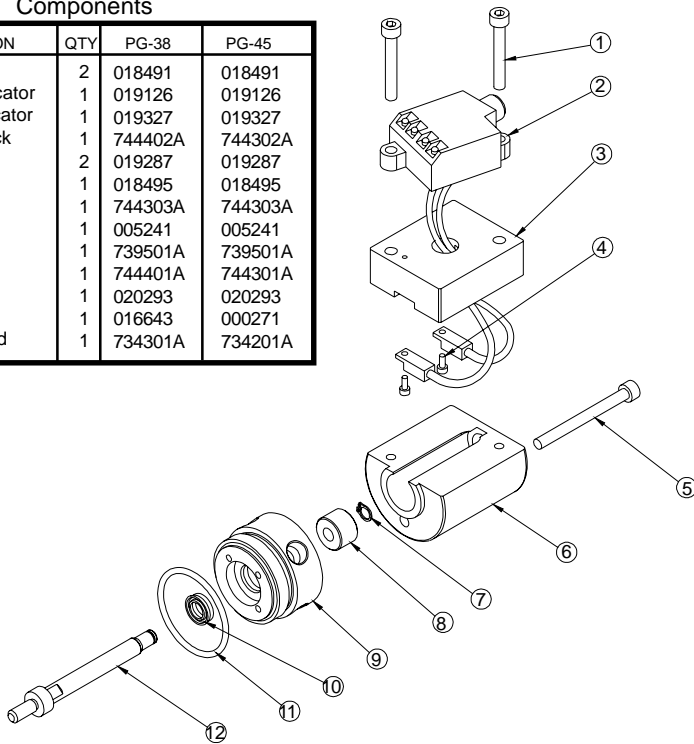
Single Connector C2000 Cylindicator
DC Proximity Switch
Senses Open & Closed Positions

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



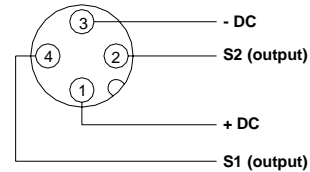
Components

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



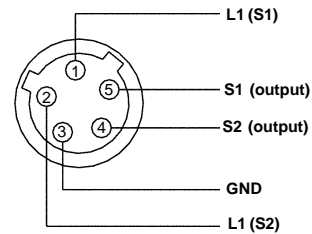
DC ~ Cylindicator
Two 3-Wire Sensors
Supply Voltage: 10-30 VDC
Load Current: 200mA Max.
Single Connector ~ Euro

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

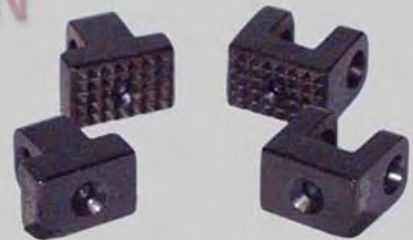
SO. 2 reads the closed position of the gripper.
If SO. 2 is required for the open position (transposed),
order: TRSPN-AC



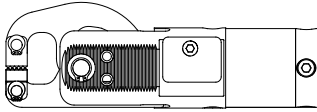
Mini Locking Grippers



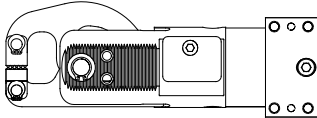
BTM
CORPORATION



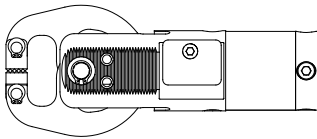
STANDARD PADS
CUSTOM PADS AVAILABLE



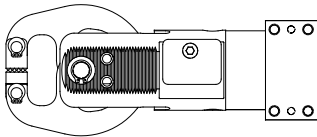
739400A
PG-38MLG-S
 Single 65° Opening Arm
pg. 38



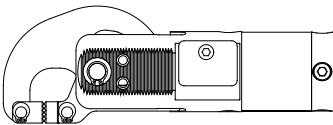
739400R
PG-38MLG-S-FM (Flange Mount)
 Single 65° Opening Arm
pg. 38



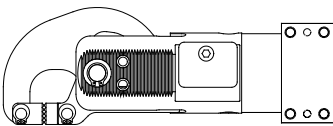
739400E
PG-38MLG-D
 Dual 65° Opening Arms
pg. 39



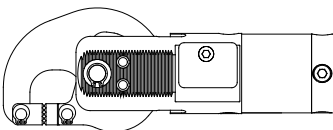
739400S
PG-38MLG-D-FM (Flange Mount)
 Dual 65° Opening Arms
pg. 39



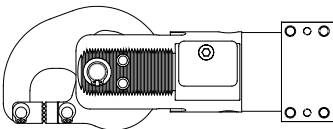
739400F
PG-38MLG-SF
 Single 65° Opening Flange Arm
pg. 40



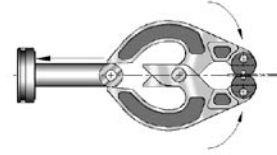
739400T
PG-38MLG-SF-FM (Flange Mount)
 Single 65° Opening Flange Arm
pg. 40



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: \varnothing 38.1mm [1.5"]

STROKE: 20.5mm [0.81"]

OPERATING PRESSURE: 4 - 5.5 BAR

[60 - 80 PSI]

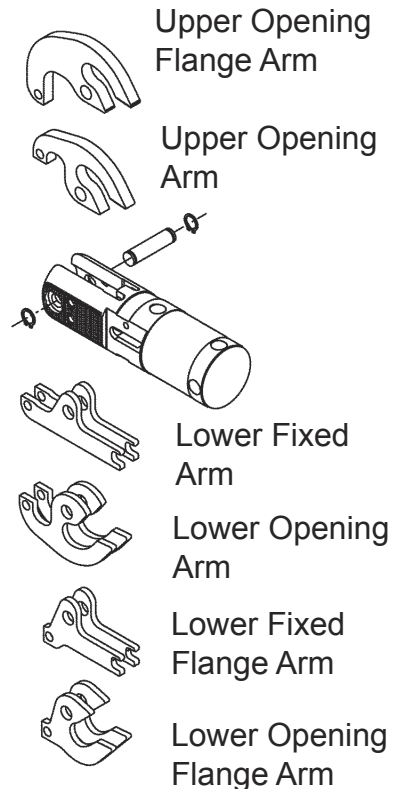
WEIGHT: .7 kg [1.5 lbs.]

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

@ 5.5 BAR = .9 kN [205 lbs.]

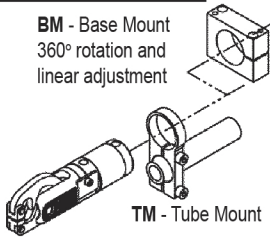
Interchangeable Arm Styles

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



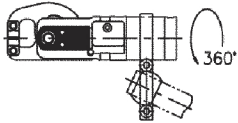
Gripper Mounts

BM - Base Mount
360° rotation and
linear adjustment

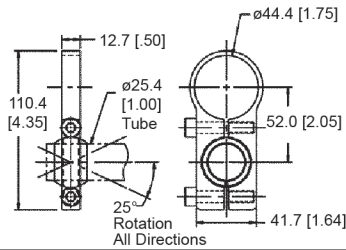


TM - Tube Mount

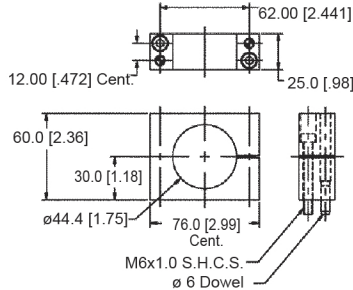
The round gripper body design and Tube Mount provides 360° rotation, linear, sliding and swiveling adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to ensure a positive lock. Patent No. 5,647,625



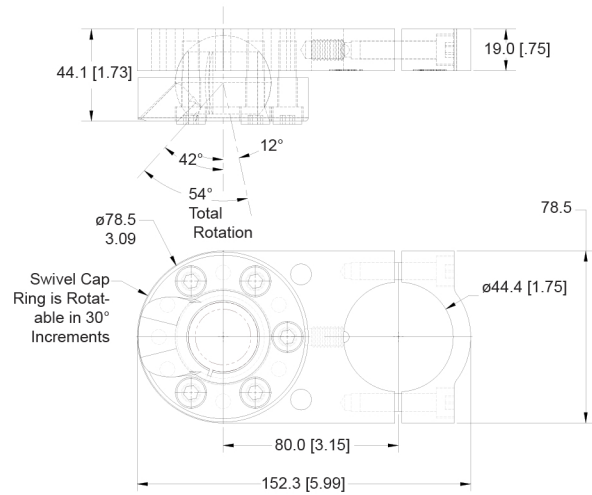
TM - Tube Mount 708700D



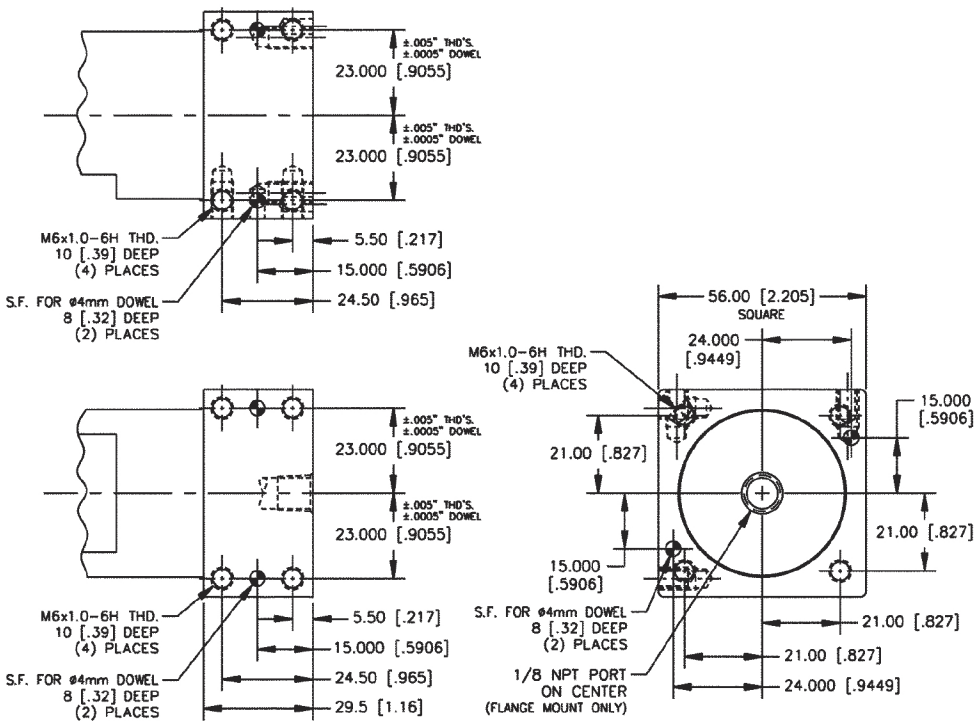
BM - Base Mount 730200C



HTM - 1 1/4" Tube Mount 767400L



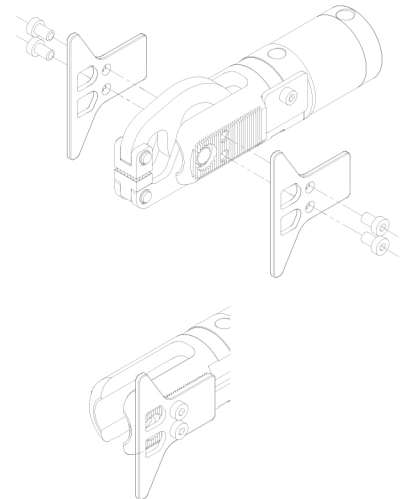
FM - Flange Mount Dimensions



Part Stops

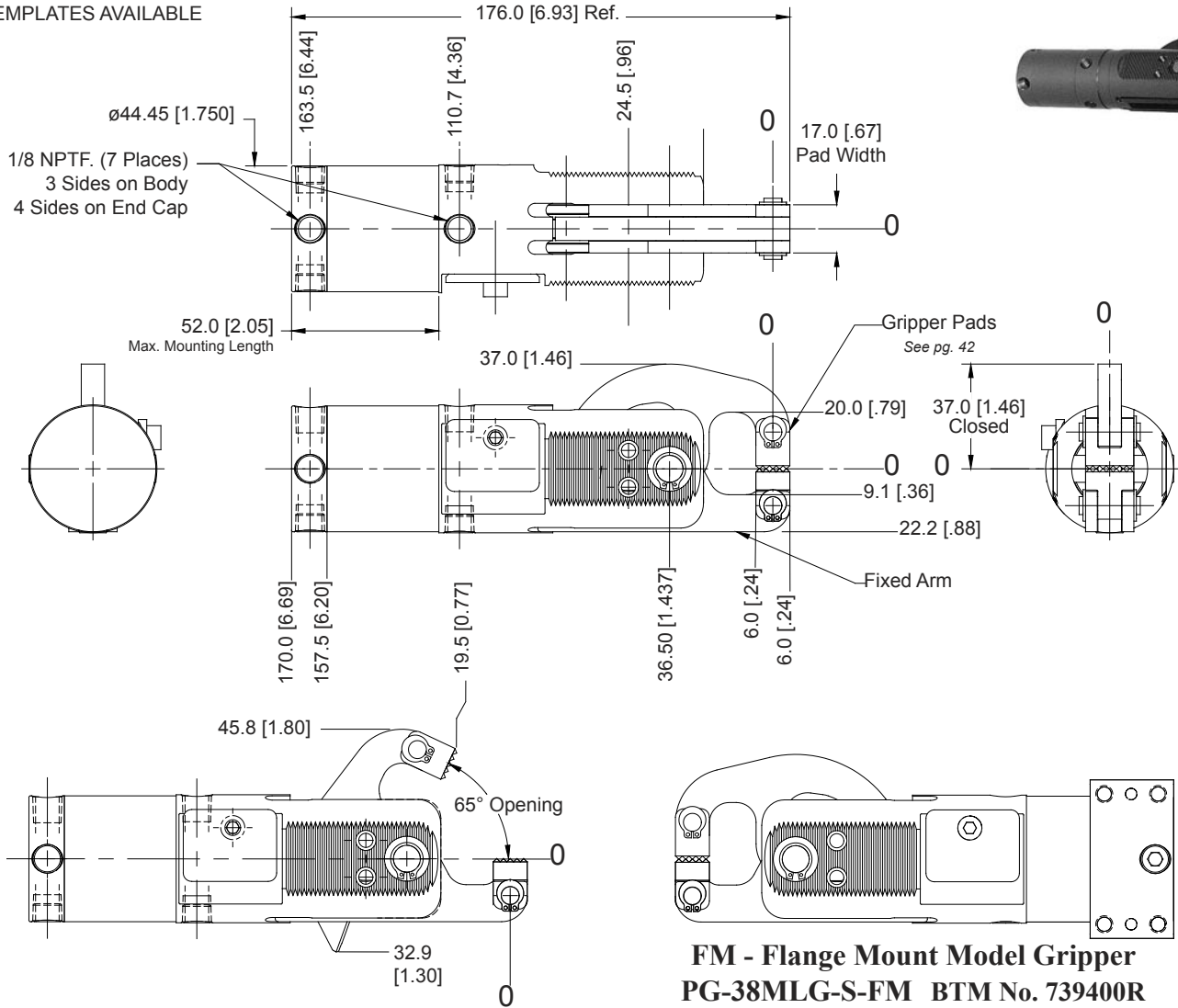
Part Stops (PS)

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.

CAD TEMPLATES AVAILABLE



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

HOW TO ORDER

MODEL

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

PG-38MLG-S - 1 - 3 - TM - PS - SPT-DC-R

BTM No. 739400A

OPTIONS

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.]

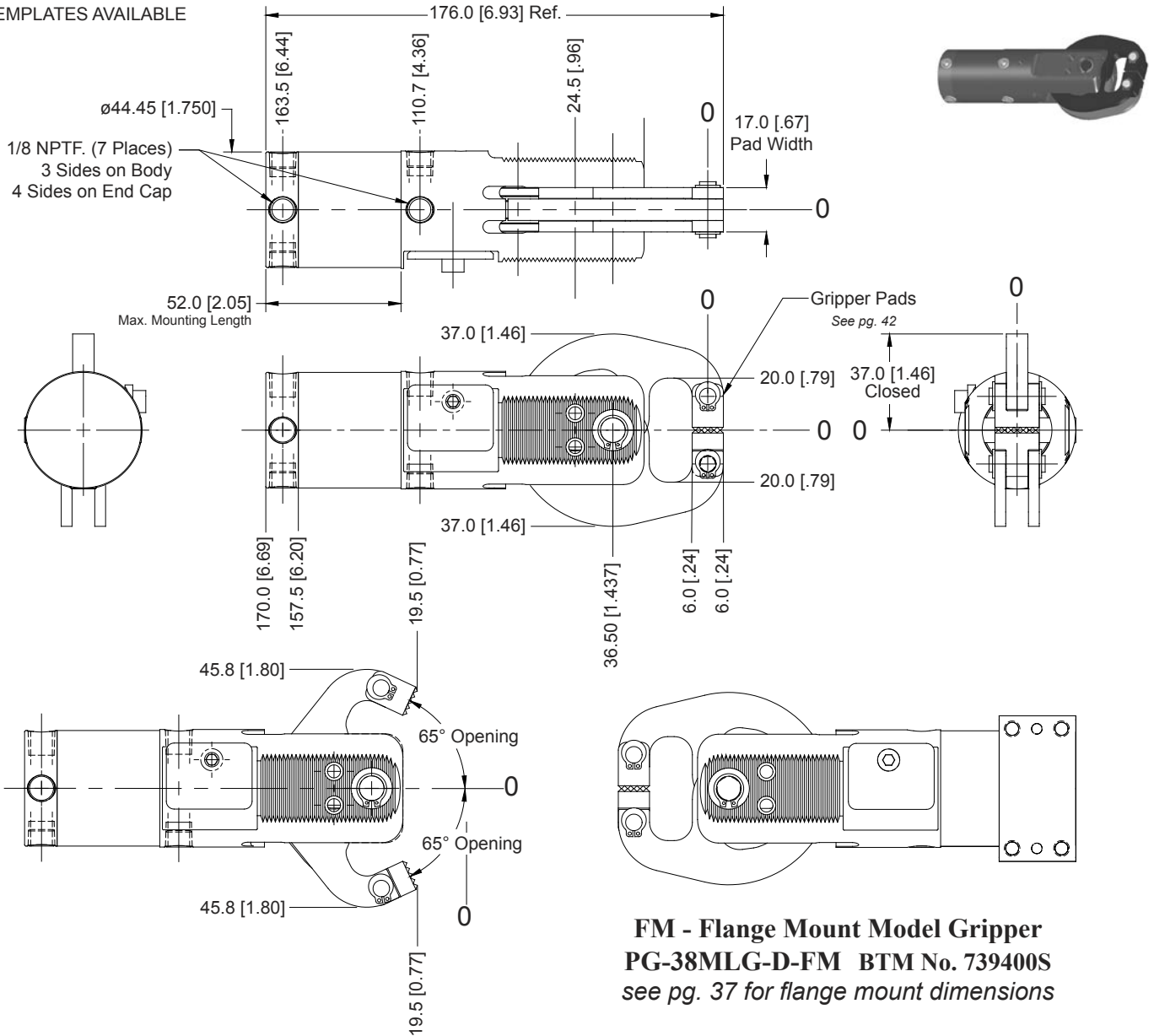
@ 5.5 BAR = .9 kN [205 lbs.]

PG-38MLG ~ Double Opening

PG-38MLG-D BTM No. 739400E



CAD TEMPLATES AVAILABLE



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

HOW TO ORDER

- MODEL
- 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

PG-38MLG-D - 1 - 3 - TM - PS - SPT-DC-R

BTM No. 739400E

OPTIONS

SPECIFICATIONS

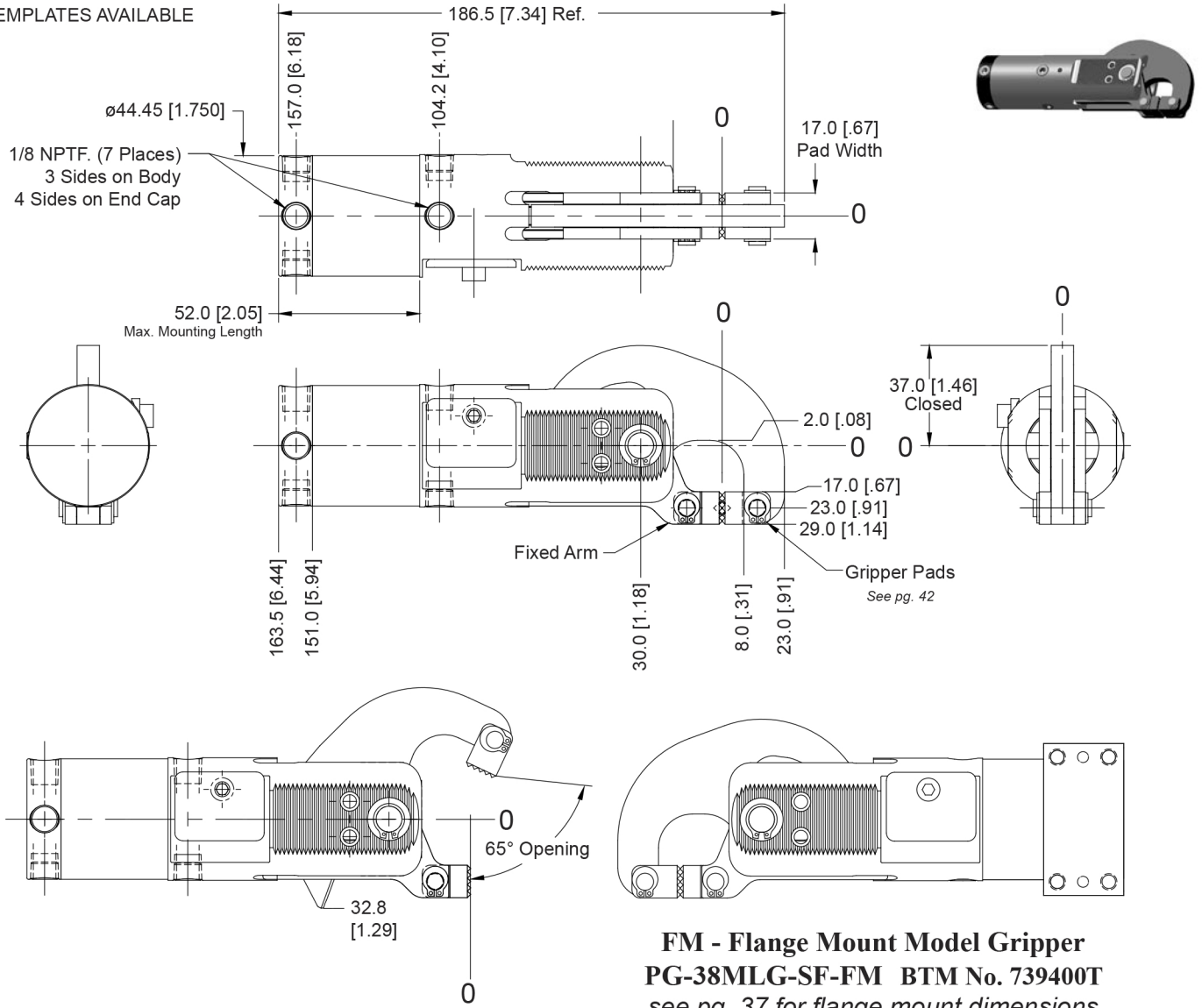
BORE: $\phi 38.1$ [1.5"]
 STROKE: 20.5 [0.81"]

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

WEIGHT: .7 kg [1.5 lbs.]

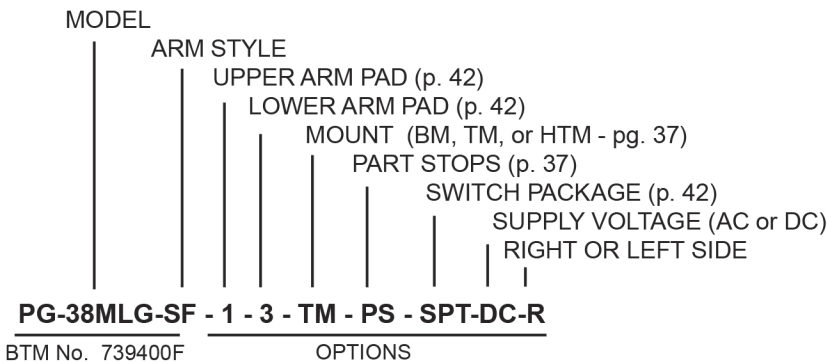
GRIPPING FORCE:
 @ 4 BAR = .7 kN [153 lbs.]
 @ 5.5 BAR = .9 kN [205 lbs.]

CAD TEMPLATES AVAILABLE



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

HOW TO ORDER



SPECIFICATIONS

BORE: \varnothing 38.1 [1.5"]
 STROKE: 20.5 [0.81"]

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

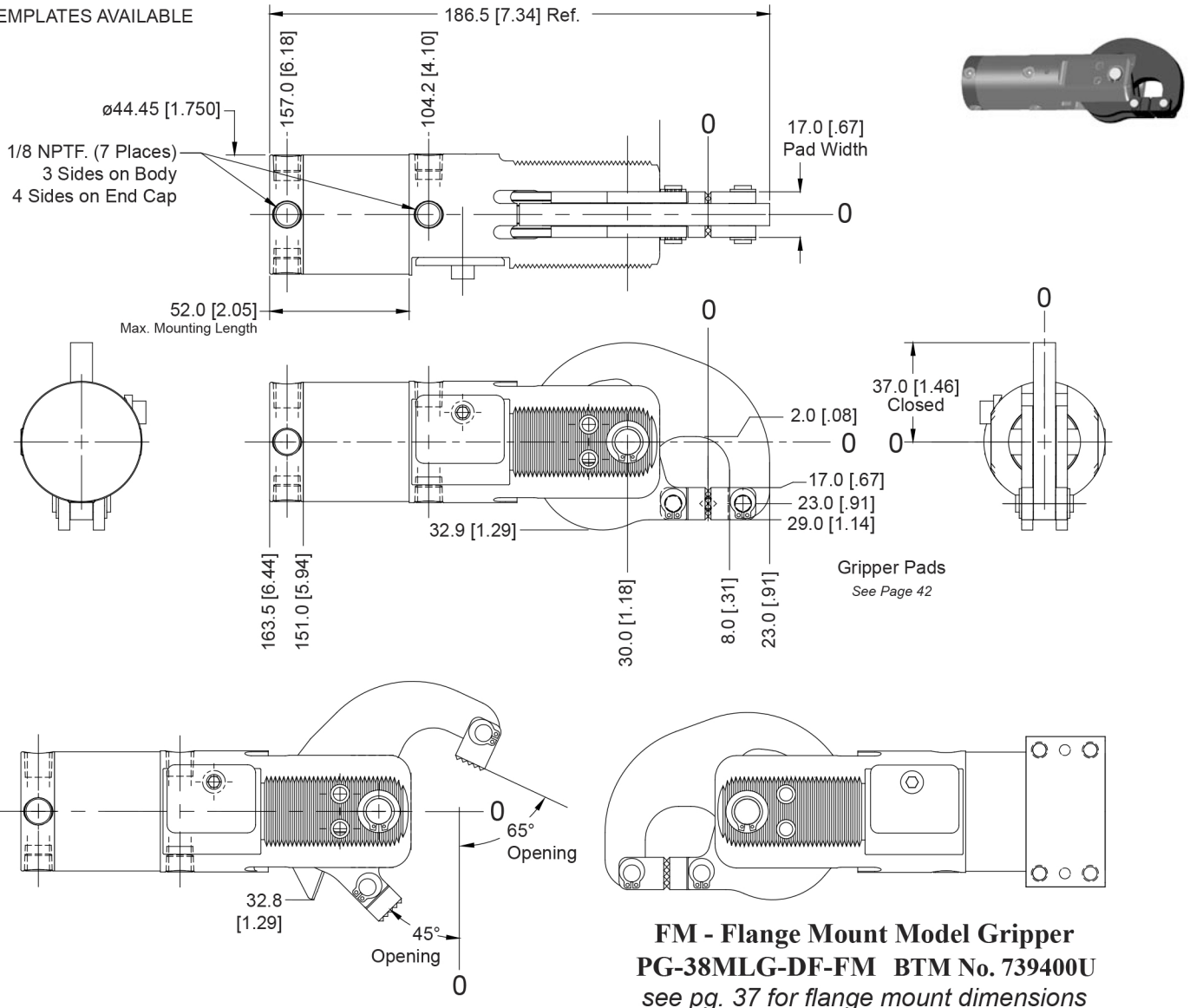
WEIGHT: .7 kg [1.5 lbs.]
 GRIPPING FORCE:
 @ 4 BAR = .7 kN [153 lbs.]
 @ 5.5 BAR = .9 kN [205 lbs.]

PG-38MLG ~ Double Opening Flange Arms

PG-38MLG-DF BTM No. 739400G

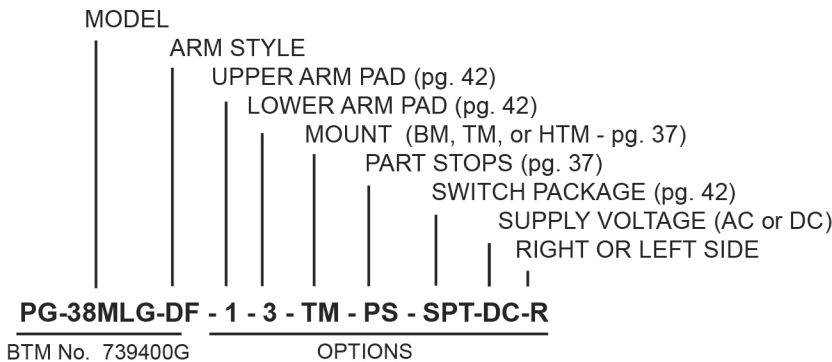


CAD TEMPLATES AVAILABLE



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

HOW TO ORDER



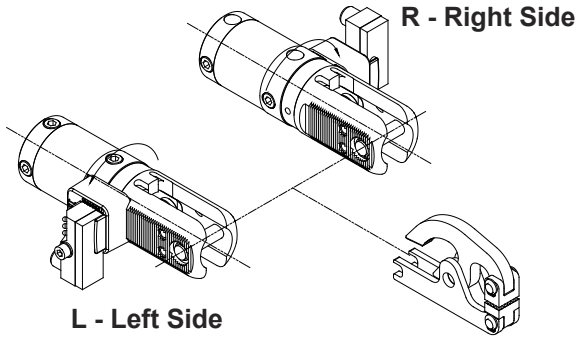
SPECIFICATIONS

BORE: \varnothing 38.1 [1.5"]
 STROKE: 20.5 [0.81"]

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

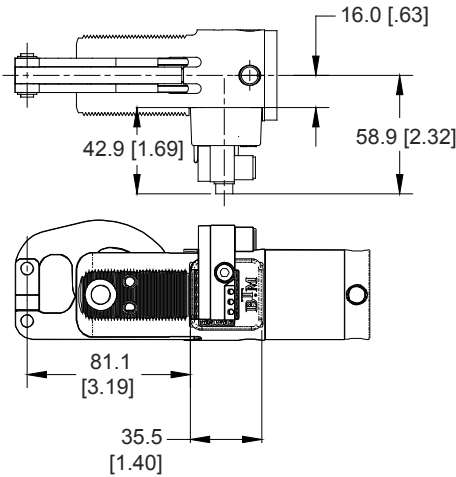
WEIGHT: .7 kg [1.5 lbs.]
 GRIPPING FORCE:
 @ 4 BAR = .7 kN [153 lbs.]
 @ 5.5 BAR = .9 kN [205 lbs.]

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.

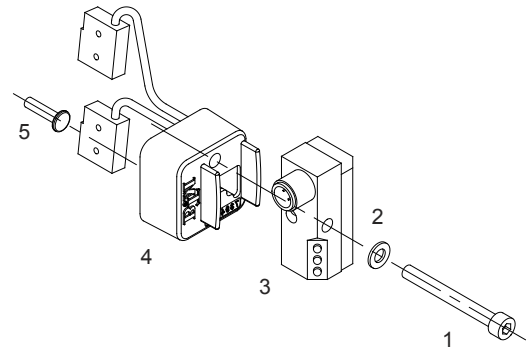
SP - BTM No. (see chart)



Order Code	Description	Ass'y No.
SPT-DC	TURCK DC - SO2 CLOSED	739400B
TSPT-DC	TURCK DC - SO2 OPEN	739400K
SPT-AC	TURCK AC - SO2 CLOSED	739400H
TSPT-AC	TURCK AC - SO2 OPEN	739400J
SPP-DC	P&F DC - SO2 CLOSED	739400L
TSPP-DC	P&F DC - SO2 OPEN	739400M
SPAB-DC	Allen Bradley DC - SO2 CLOSED	Call BTM
TSPAB-DC	Allen Bradley DC - SO2 OPEN	Call BTM

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

ITEM	DESCRIPTION	QTY	NUMBER
1	M5 x 45mm S.H.C.S.	1	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

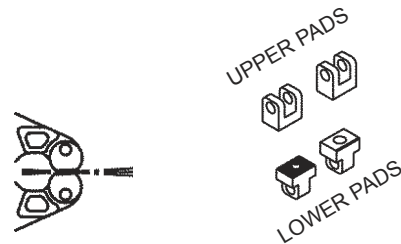
Material Thickness To Be Gripped

		Upper Single Pad		Upper Single Smooth Pad
Order No.	BTM Number	Order No.	BTM Number	
1	739410A	5	739415A	
1	739410A	5	739415A	
2	739411A	6	739416A	
2	739411A	6	739416A	
13	739423A	15	739425A	

LOWER PADS

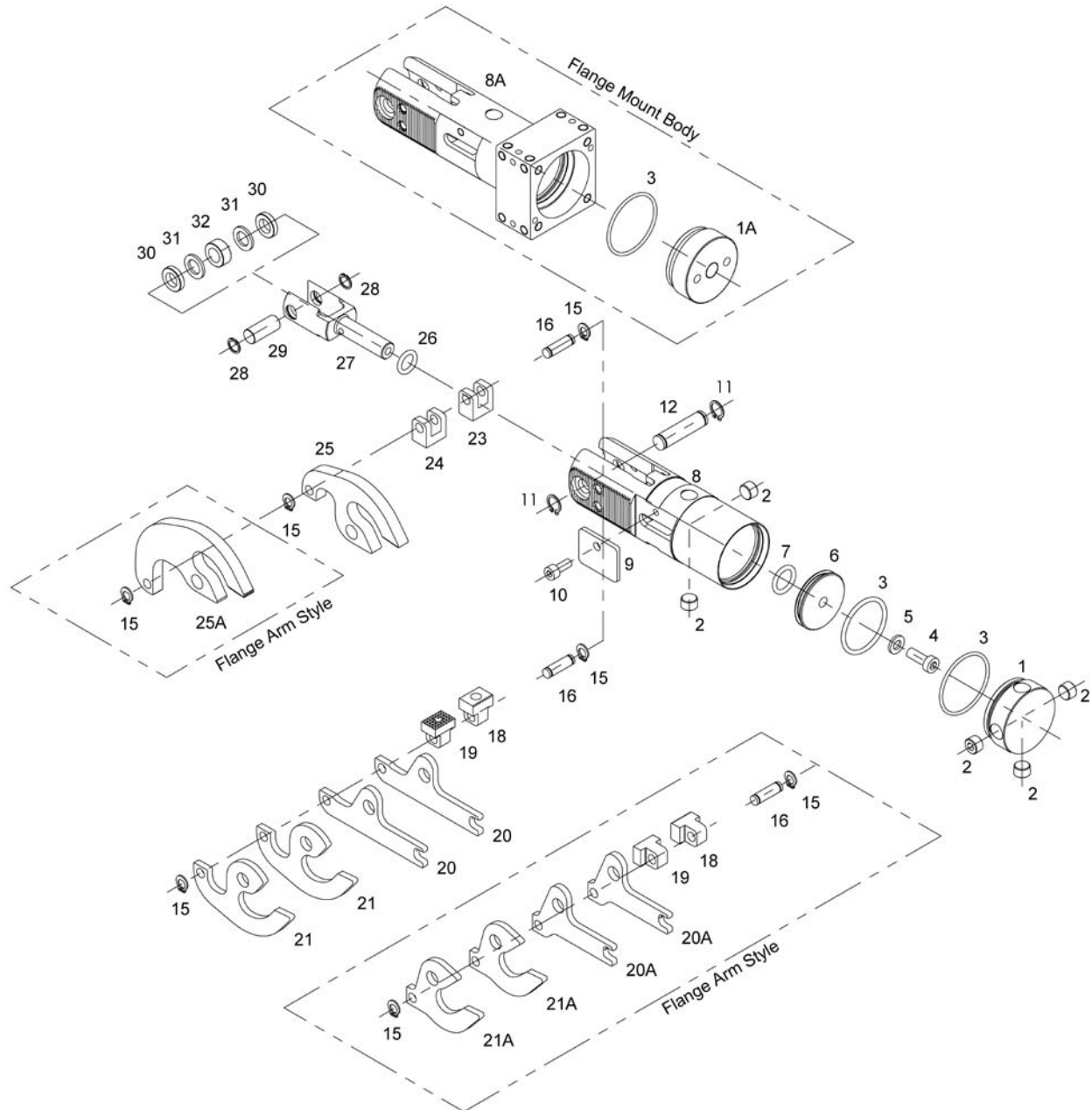
Material Thickness To Be Gripped

		Lower Single Pad		Lower Single Smooth Pad
Order No.	BTM Number	Order No.	BTM Number	
3	739412A	7	739417A	
4	739413A	8	739418A	
4	739413A	8	739418A	
14	739424A	16	739426A	
14	739424A	16	739426A	



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

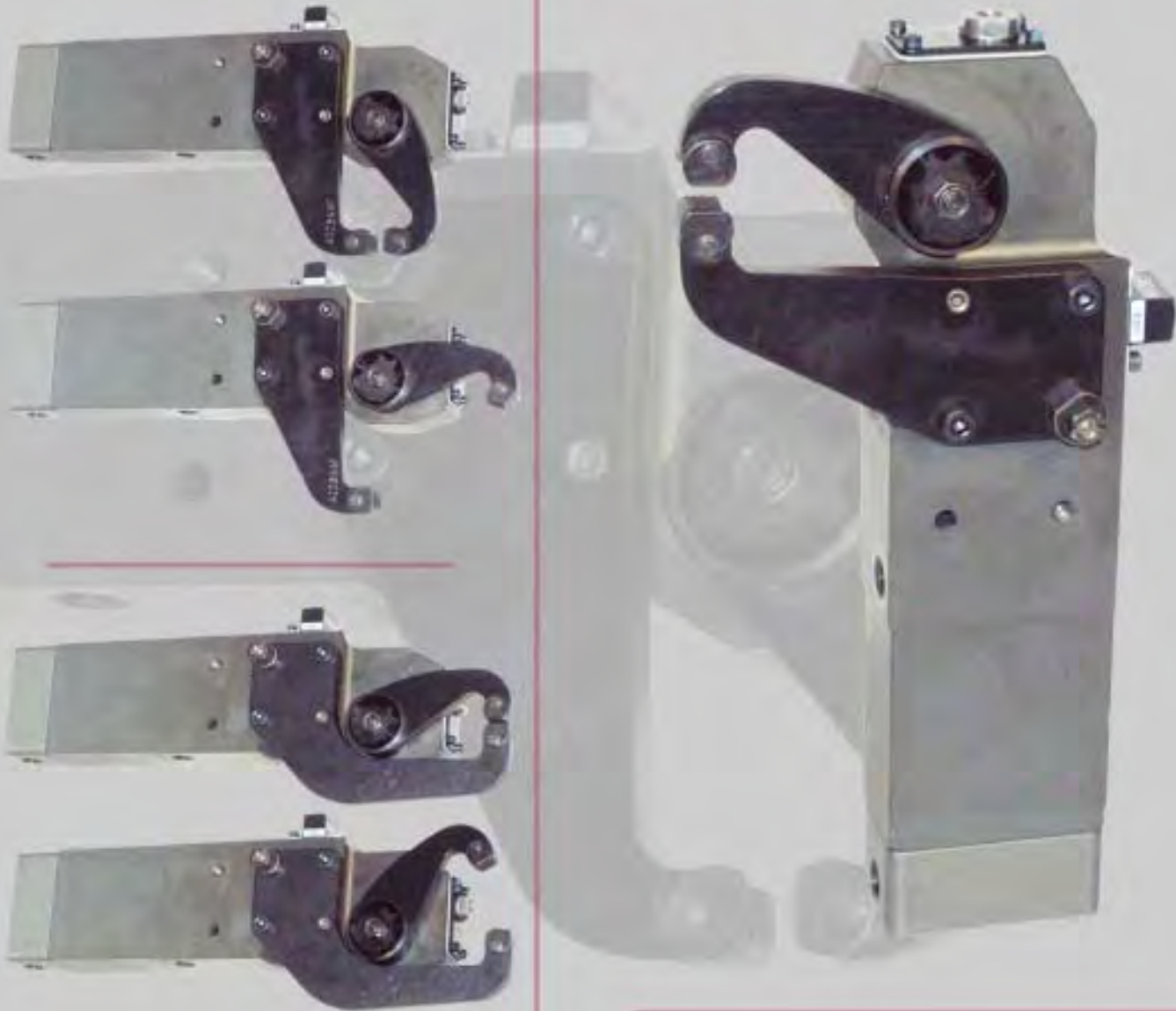
PG-38MLG Components



ITEM	DESCRIPTION	QTY	NUMBER	ITEM	DESCRIPTION	QTY	NUMBER
1	End Cap	1	739404A	19	Pad 3, 4 & 14 Lower Single	*	page 42
1A	End Cap (Flange Mount)	1	739402R	20	Lower Fixed Arm	2	739403A
2	Port Plug	5	014276	20A	Lower Fixed Flange Arm	2	739402F
3	Piston Cap Seal	1	016643	21	Lower Opening Arm	2	739402A
4	Piston Rod Screw	1	023182	21A	Lower Opening Flange Arm	2	739401G
5	Piston Washer	1	018601				
6	Piston	1	739405A	23	Pad 5, 6 & 15 Upper Smooth	*	page 42
7	Piston Shock	1	000149	24	Pad 1, 2 & 13 Upper Single	*	page 42
8	Body	1	739408A	25	Upper Opening Arm	1	739401A
8A	Body (Flange Mount)	1	739401R	25A	Upper Opening Flange Arm	2	739401F
9	Cover	1	739407A	26	Rod Seal	1	013007
10	Cover Screw	1	016045	27	Roller Slide Rod	1	739406A
11	Pivot Pin Retainer	2	001238	28	Pin Retainer	2	001428
12	Arm Pivot Pin	1	730211A	29	Roller Pin	1	730205A
15	Pad Pin Retainer	4	005241	30	Outer Roller	2	730203A
16	Pin - Pad to Arm	2	739409A	31	Thrust Bearing	2	728028A
				32	Inner Roller	1	730204A
18	Pad 7, 8 & 16 Lower Smooth	*	page 42				

* Denotes Optional Components

Sealed Heavy Duty Grippers



STANDARD PADS



CUSTOM PADS AVAILABLE

BTM
CORPORATION

Sealed Heavy Duty Gripper SHDG 52 Series

BTM
CORPORATION

FEATURES

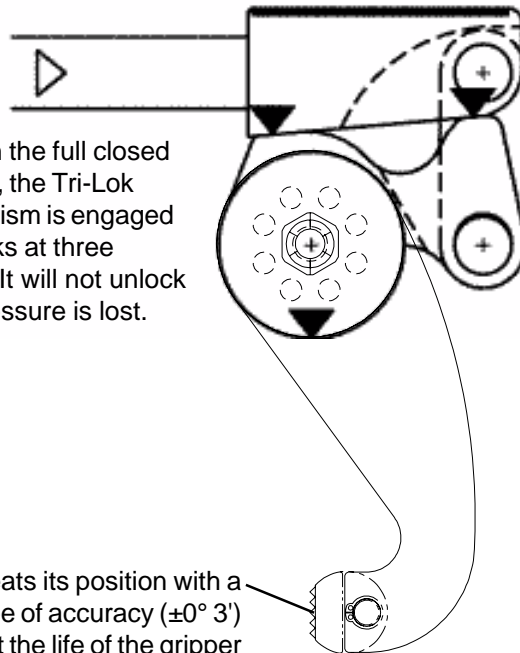
- Sealed mechanism ~ Lubricated for life of gripper
- Gripper mechanism is impervious to weld contamination
- TRI-LOK mechanism ~ Remains locked if air pressure is lost
- Body style provides NAAMS mounting patterns
- Integral 52mm (2") oval bore cylinder with heavy wall
- Hardcoated aircraft aluminum 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



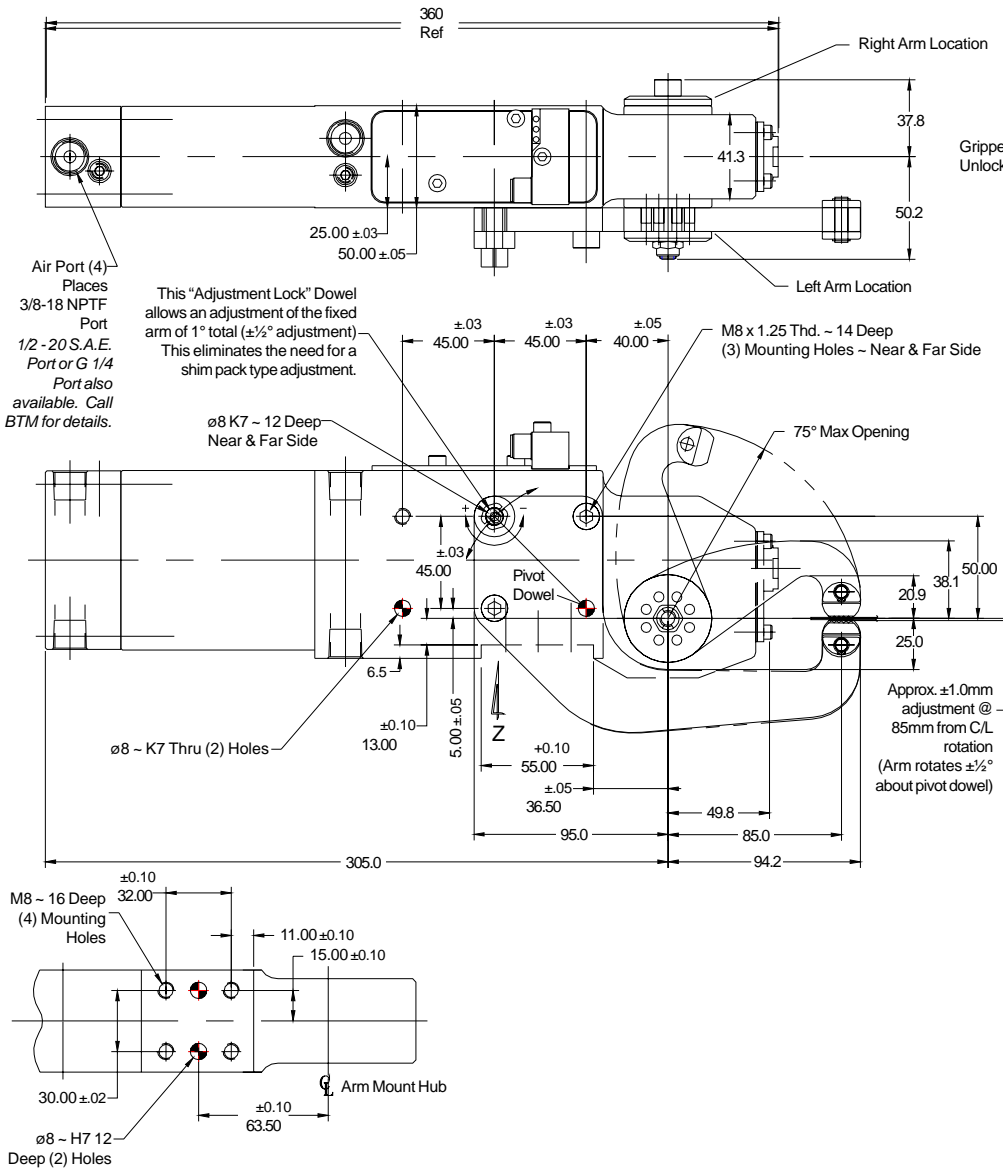
TriLok

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.

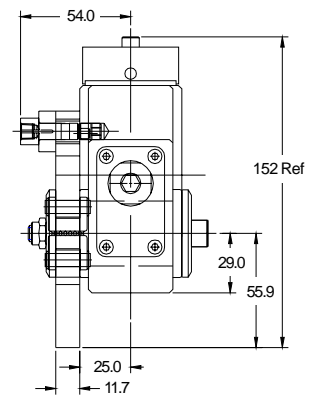
This surface repeats its position with a high degree of accuracy ($\pm 0^{\circ} 3'$) throughout the life of the gripper



CAD TEMPLATES AVAILABLE



Grippers have a Manual Unlock provision for setup.



View Z

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) = $\frac{16\,500 \times \text{LINE PRESSURE (Bars)}}{85}$

Gripping Force on Center of Gripper Pads (lbs.) = $\frac{10 \times \text{LINE PRESSURE (P.S.I.)}}{3.35}$

Equivalent Bore Size
ø52mm [ø2.00 in]

Use flow controls to reduce impact

Manufactured by BTM CORPORATION
Marysville, Michigan USA
PATENTED

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

GRIPPER ASSEMBLY NUMBER
 ARM LOCATION: L= LEFT SIDE, R= RIGHT SIDE
 MOVABLE ARM GRIPPER PAD *
 FIXED ARM GRIPPER PAD *
 PROXIMITY SWITCH OPTIONS

Pg. 46 **744500D - L - 728050A - 733201H - SC2**

*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

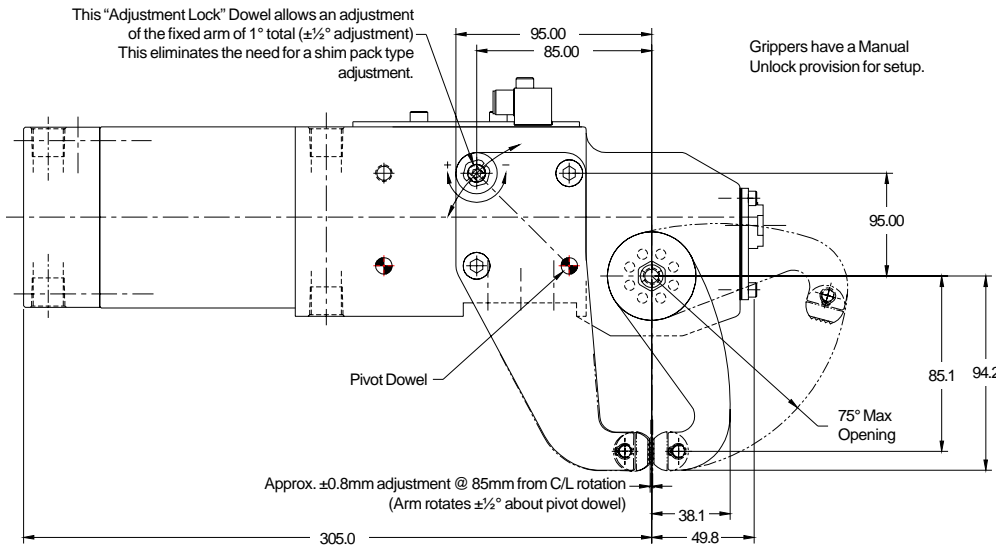
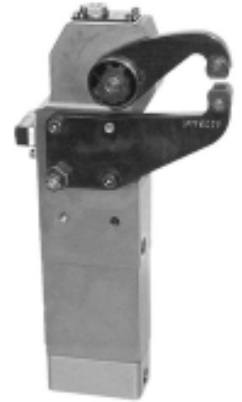
SHDG52



CAD TEMPLATES AVAILABLE

Standard Switch Package Turck Status Controller DC	Switch Package Namco C2000 Sensor	Switch Package Pepperl & Fuchs Status Controller DC	Cylindicator Switch Block	Cover Block No Switch
Ni2-Q6.5-AP6-0.20-FS4.4X3/S304	DC Type 92 EE280-92140 SC2NDC	NBN2-F581-160S6-E8-V1	SP Switches Not Included	NS For Use Without Switches
SC1 SC2 AC Ni2-Q6.5-ADZ32-0.16-FSB5.4X4/S304 SC1AC SC2AC	DC AC Contact BTM for availability	SC1PDC SC2PDC AC Not Available	SP Not Available For 30° Opening	NS

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



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.

$$\text{Gripping Force on Center of Gripper Pads (N)} = \frac{16\,500 \times \text{LINE PRESSURE (Bars)}}{85}$$

$$\text{Gripping Force on Center of Gripper Pads (lbs.)} = \frac{10 \times \text{LINE PRESSURE (P.S.I.)}}{3.35}$$

Equivalent Bore Size
ø52mm [ø2.00 in]

Use flow controls to reduce impact



Manufactured by
BTM CORPORATION
Marysville, Michigan USA
PATENTED

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

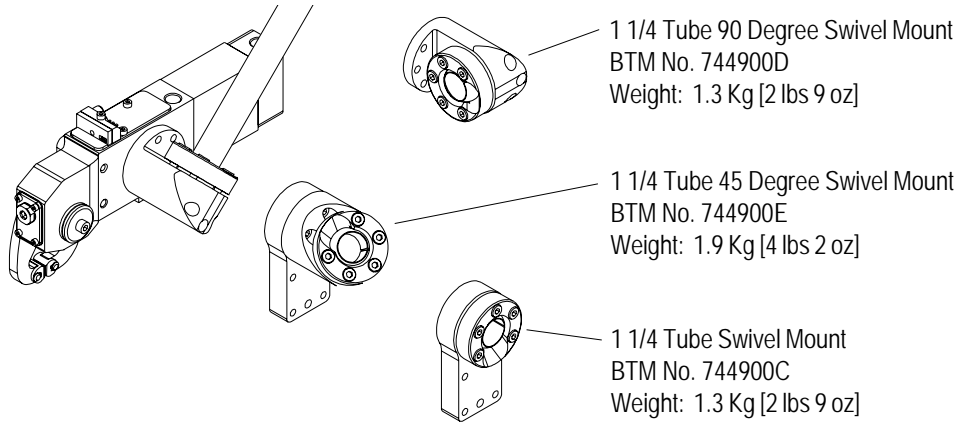
HOW TO ORDER

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

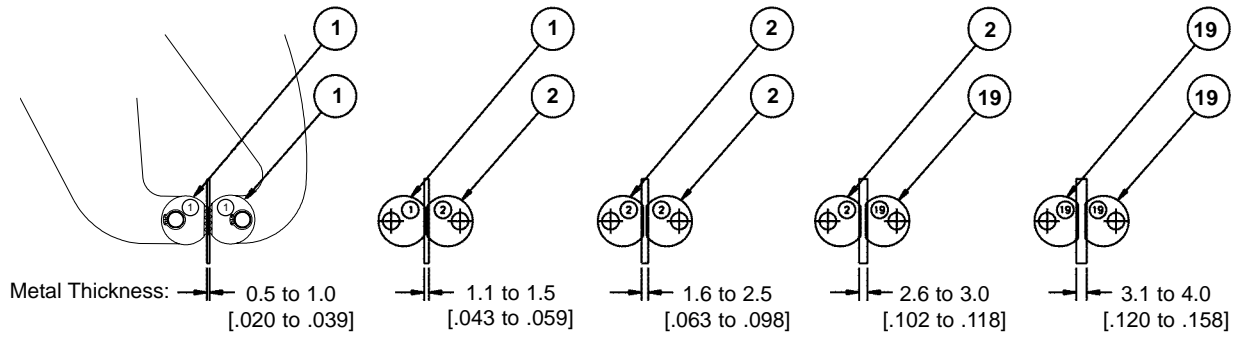
*Pad numbers may also be called out as 1, 2, 3, 4, etc. See pg. 48 for pads.

OPTIONAL 1 1/4" TUBE SWIVEL MOUNTS



GRIPPER PADS

Pad No.	①	Single Steel Pad (728039A) ~ "A" = 13.08mm [.515"]	
	②	Single Steel Pad (728040A) ~ "A" = 12.37mm [.487"]	
	⑬	Single Steel Pad (728056A) ~ "A" = 11.66mm [.459"]	



Gripper Pad Color Coding:
 [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

**NOTE: URETHANE PADS
 WORK FOR ALL METAL
 THICKNESS COMBINATIONS**

<p style="text-align: center;">Single Steel Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>1 - No. 728039A [P] 2 - No. 728040A [W] 19 - No. 728056A [Y]</p> <p style="text-align: center;"><i>Use in pairs or w/ Point Pads</i></p>	<p style="text-align: center;">Double Steel Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>3 - No. 728037A [P] 4 - No. 728038A [W] 20 - No. 728055A [Y]</p> <p style="text-align: center;"><i>Use in pairs or w/ Point Pads</i></p>	<p style="text-align: center;">Single Point Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>5 - No. 728043A [P] 6 - No. 728044A [W]</p> <p style="text-align: center;"><i>Use w/ Steel or Smooth Pads or Chisel</i></p>	<p style="text-align: center;">Double Point Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>7 - No. 728041A [P] 8 - No. 728042A [W]</p> <p style="text-align: center;"><i>Use w/ Steel or Smooth Pads or Chisel</i></p>
<p style="text-align: center;">Single Urethane Pads</p> <p>9/60 - Soft ~ Yellow No. 728000L 9/90 - Hard ~ Orange No. 728000J</p> <p style="text-align: center;"><i>Use in pairs</i></p>	<p style="text-align: center;">Double Urethane Pads</p> <p>10/60 - Soft ~ Yellow No. 728000M 10/90 - Hard ~ Orange No. 728000K</p> <p style="text-align: center;"><i>Use in pairs</i></p>	<p style="text-align: center;">Single Smooth Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>11 - No. 728047A [P] 12 - No. 728048A [W] 21 - No. 728057A [Y]</p> <p style="text-align: center;"><i>Use in pairs or w/ Point Pads</i></p>	<p style="text-align: center;">Double Smooth Pads</p> <p style="text-align: center;"><i>For Material Thickness See Above</i></p> <p>13 - No. 728049A [P] 14 - No. 728050A [W] 22 - No. 728058A [Y]</p>

2500-1500 Series Grippers



STANDARD PADS



2500



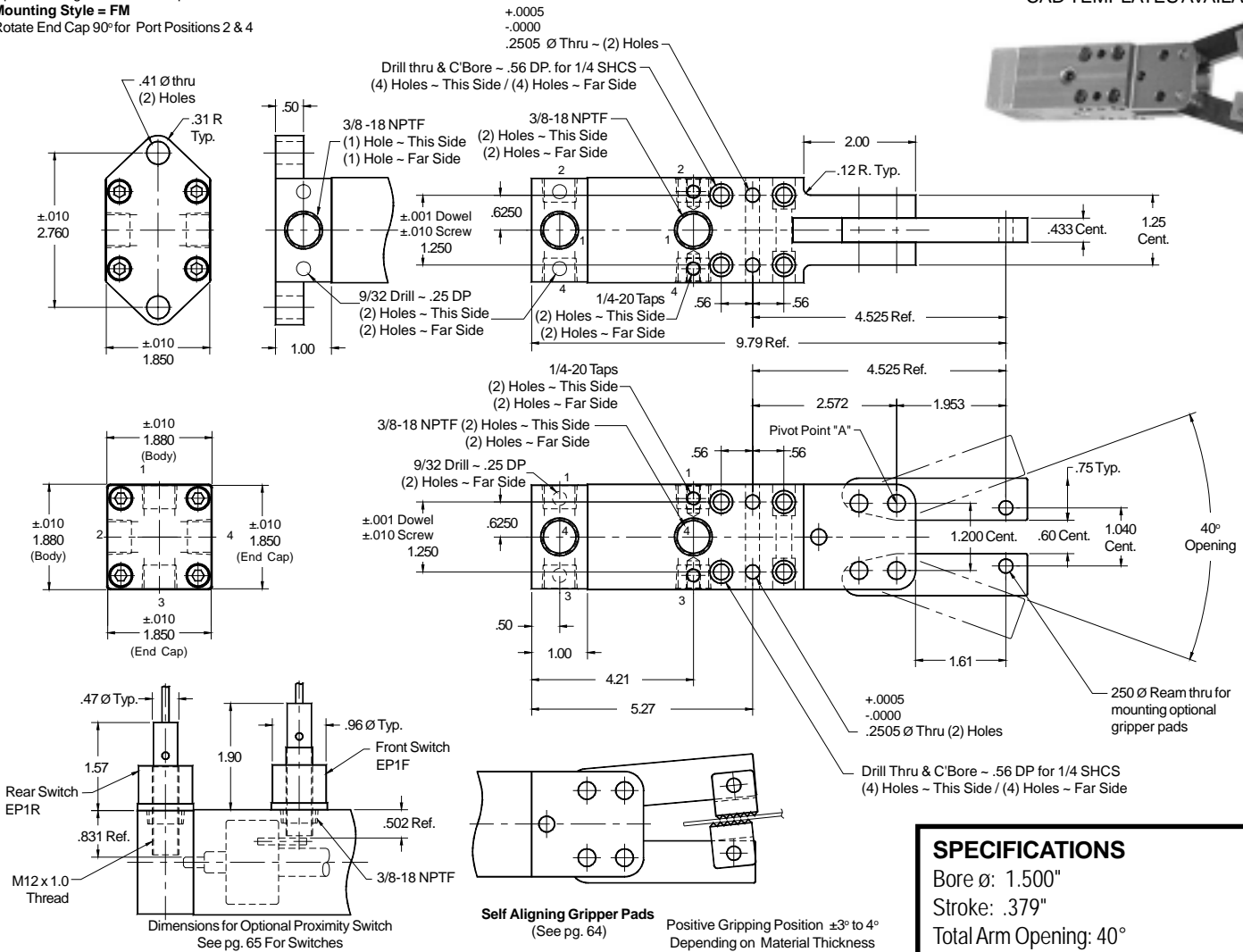
CUSTOM PADS AVAILABLE



1500

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

CAD TEMPLATES AVAILABLE



SPECIFICATIONS

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

BTM PATENTED
 Manufactured by BTM CORPORATION
 Marysville, Michigan USA

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

$$\text{GRIPPING FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARMS (INCHES)}}$$

HOW TO ORDER

- 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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F*
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R*
- SWITCH TYPE: AC OR DC

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

PG-1500-D40 - FM - 5272-FP4 -RP4 -EP2F -EP2R -AC

Body Mount No. 001661
 Flange Mount No. 003319

OPTIONS

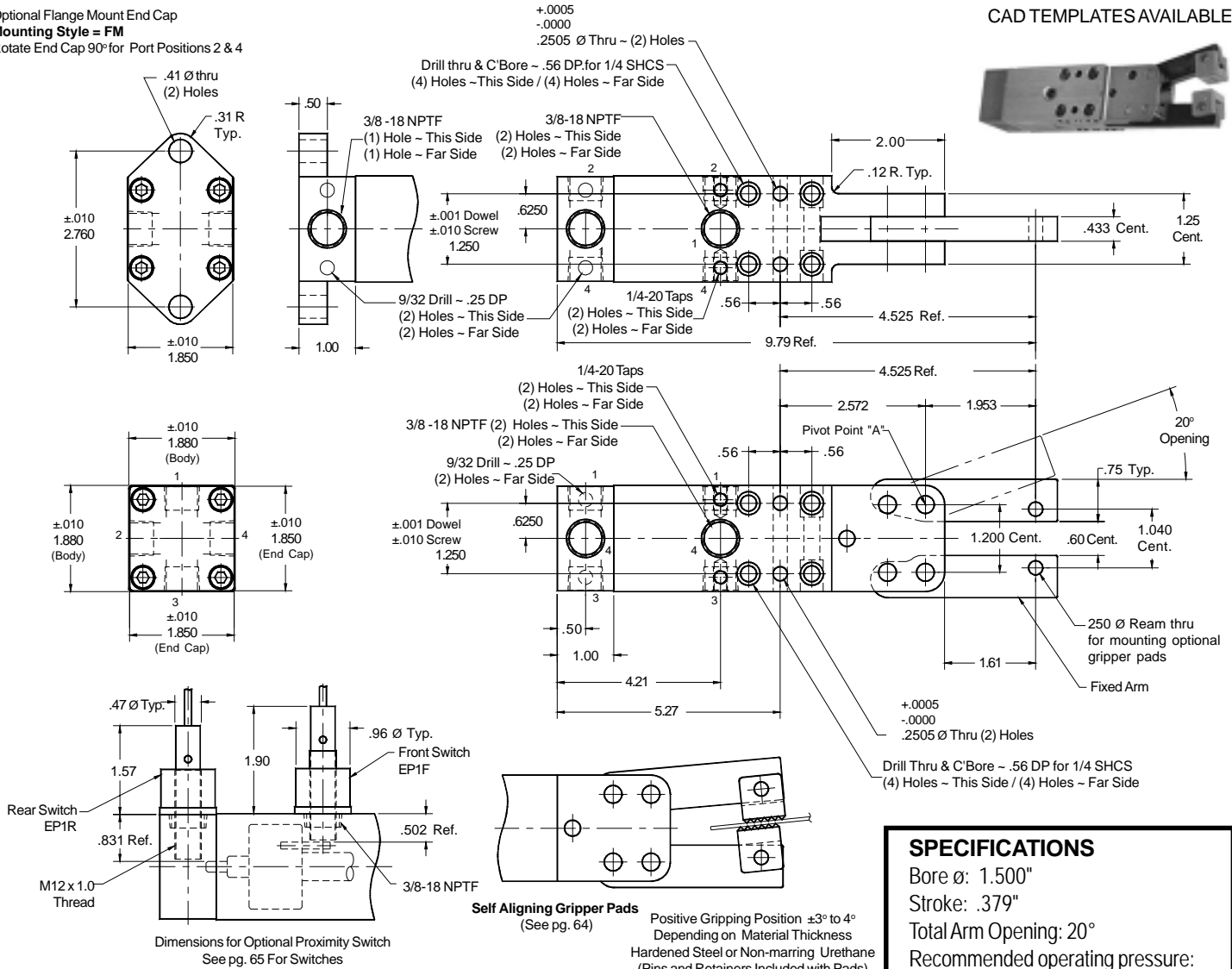
*For prox. ready ports, use:
 PR1F, PR2F, PR3F, PR4F
 PR1R, PR2R, PR3R, PR4R
 Spacers and/or adapters may be necessary.
 See pg. 66 for more information

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

CAD TEMPLATES AVAILABLE



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

$$\text{GRIPPING FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

SPECIFICATIONS

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

BTM CORPORATION
 Manufactured by BTM CORPORATION
 Marysville, Michigan USA
 PATENTED

HOW TO ORDER

- POWER GRIPPER
- 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

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

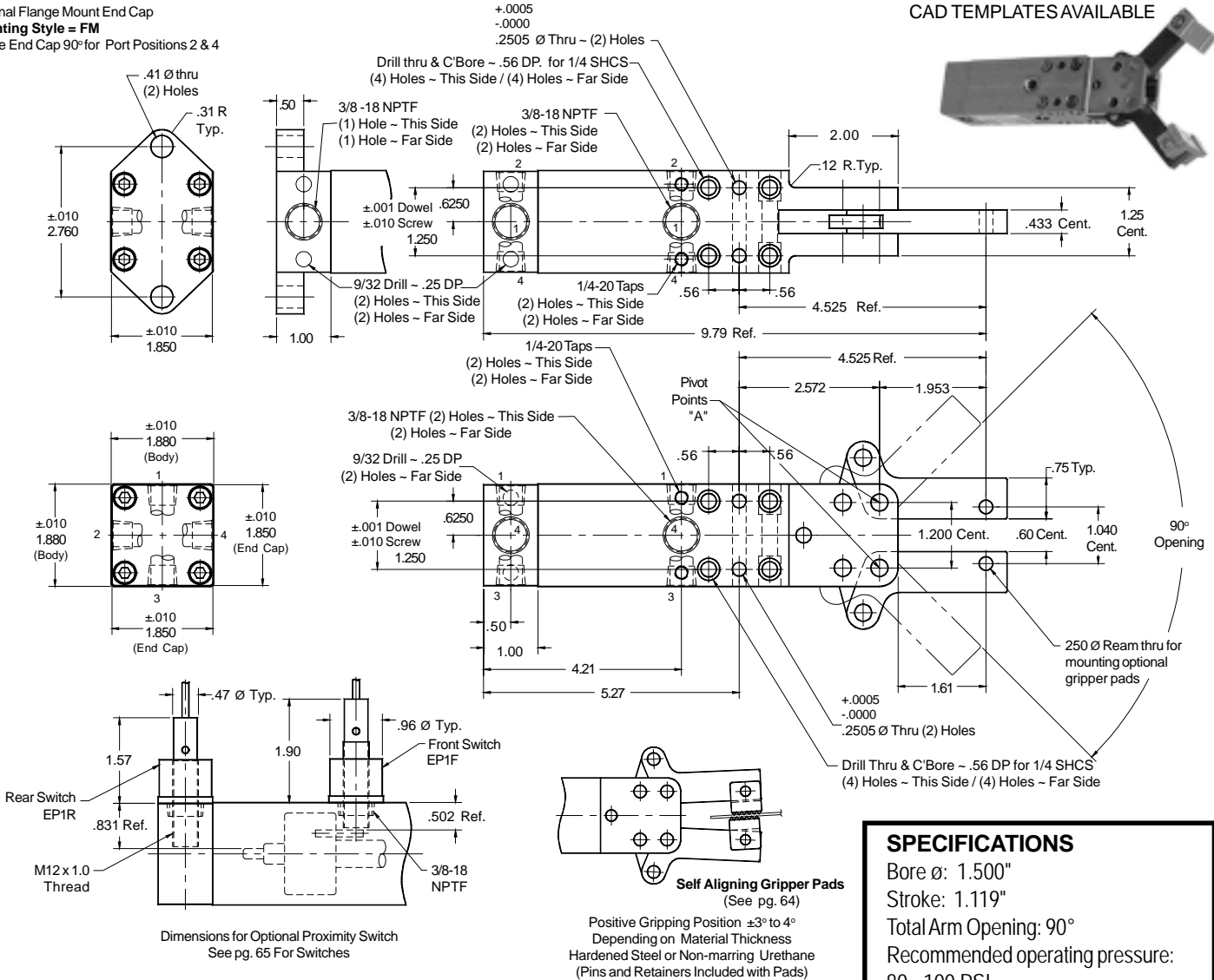
PG-1500-S20 - FM - 5272-FP4 - RP4 - EP2F - EP2R - AC

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

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

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

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

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

SPECIFICATIONS

- Bore \varnothing : 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.



Manufactured by
 BTM CORPORATION
 Marysville, Michigan USA
 PATENTED

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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

PG-1500-90-FM-5272-FP4-RP4-EP2F-EP2R-AC

Body Mount No. 005316
 Flange Mount No. 005330

Note: Ports will be in position 1 unless otherwise specified

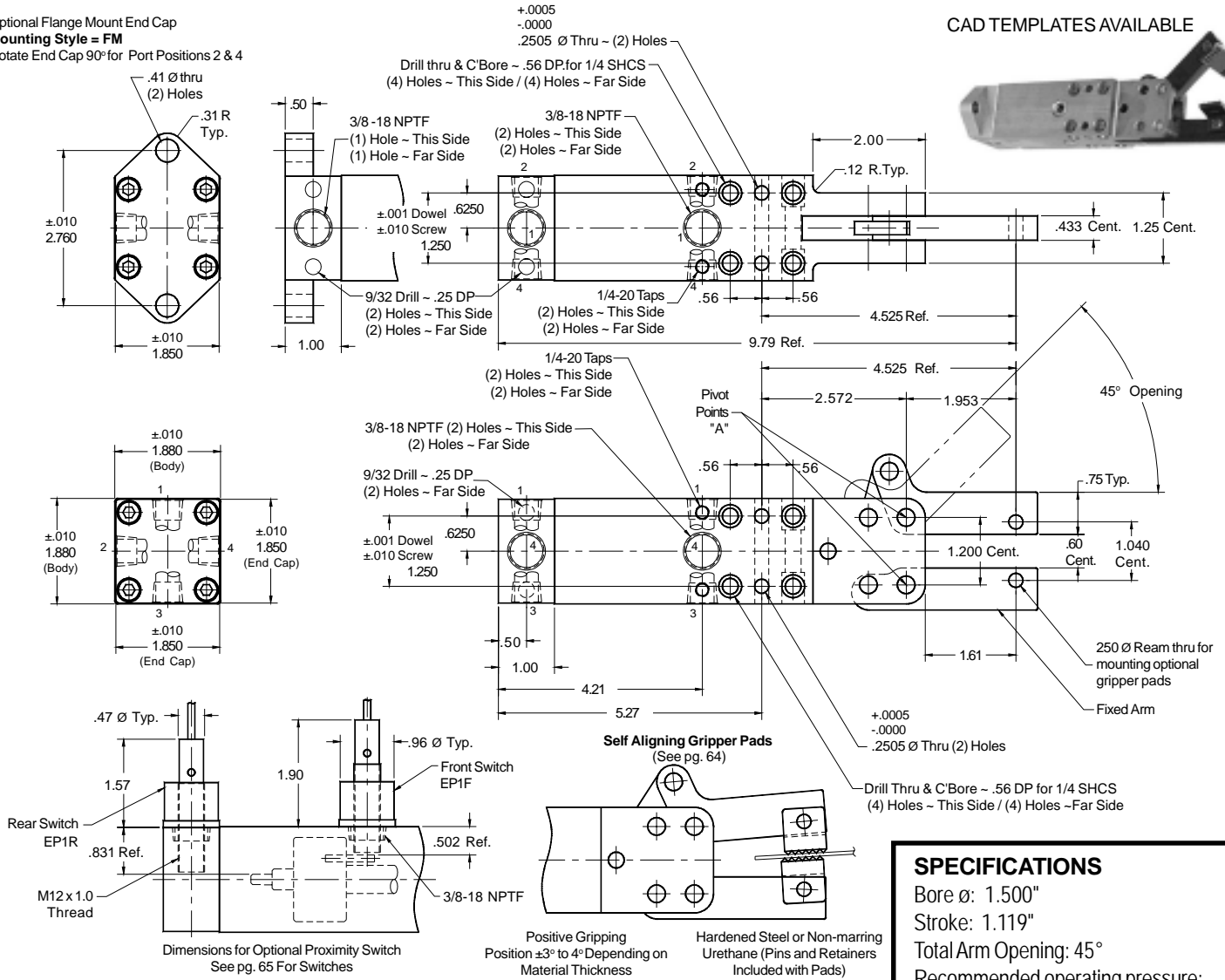
*For prox. ready ports, use:
 PR1F, PR2F, PR3F, PR4F
 PR1R, PR2R, PR3R, PR4R
 Spacers and/or adapters may be necessary.
 See pg. 66 for more information

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

CAD TEMPLATES AVAILABLE



SPECIFICATIONS	
Bore ø:	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.
BTM CORPORATION Mansville, Michigan USA PATENTED	

$$\text{GRIPPING FORCE (lbs)} = \frac{2 \times \text{LINE PRESSURE (P.S.I.)} \times \text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}{1}$$

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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

PG-1500-S45 - FM - 5272-FP4 - RP4 - EP2F - EP2R - AC

Body Mount No. 005326
Flange Mount No. 005329

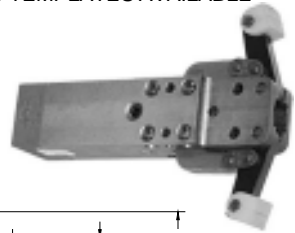
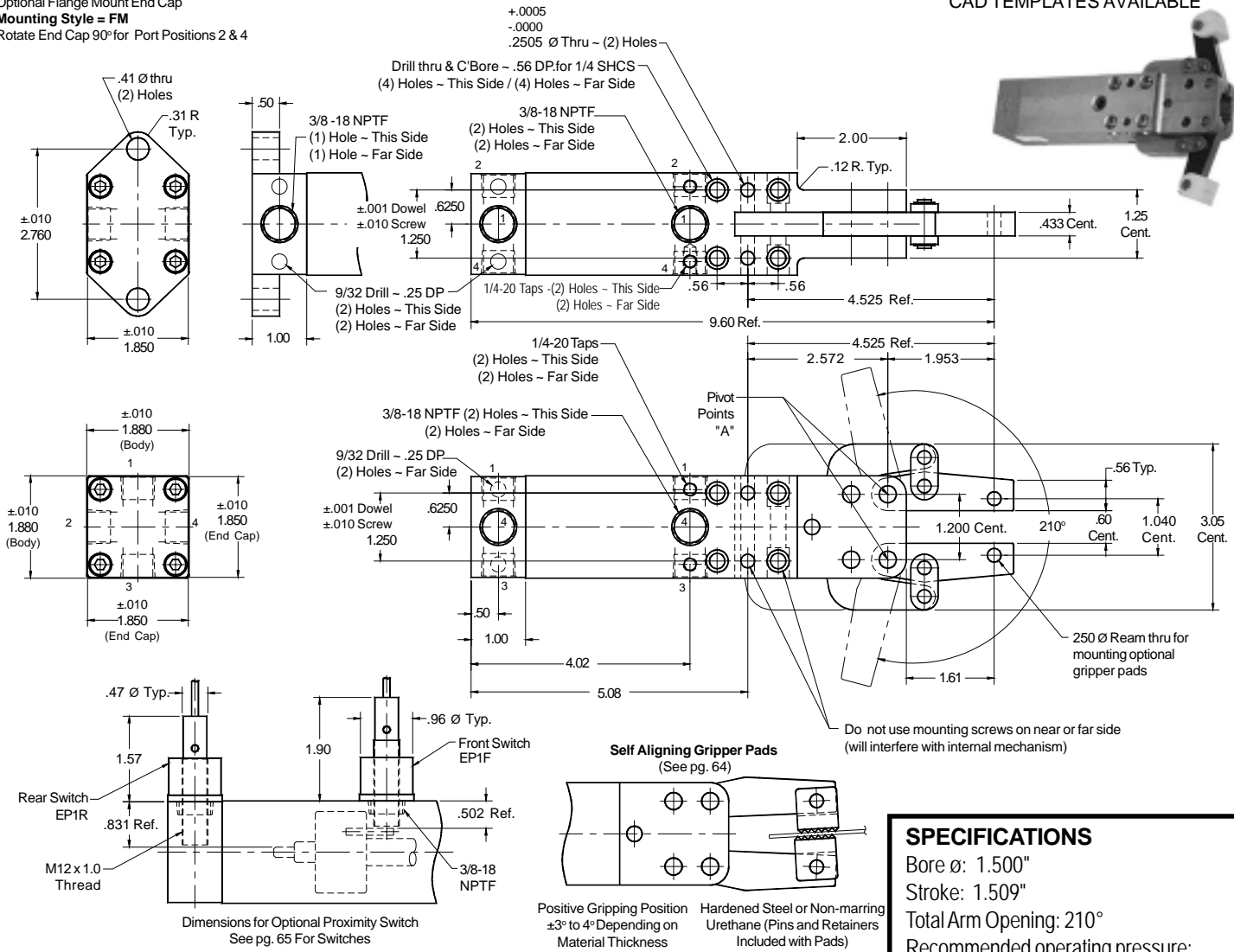
OPTIONS

Note: Ports will be in position 1 unless otherwise specified

*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

CAD TEMPLATES AVAILABLE



SPECIFICATIONS

Bore \varnothing : 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.



Manufactured by
 BTM CORPORATION
 Marysville, Michigan USA
PATENTED

$$\text{GRIPPING FORCE (lbs)} = \frac{2.70 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

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

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

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

SWITCH TYPE: AC OR DC

PG-1500-D-210 - FM - 5272-FP4 - RP4 - EP2F - EP2R - AC

Body Mount No. 004066

OPTIONS

Flange Mount No. 005332

Note: Ports will be in position 1 unless otherwise specified

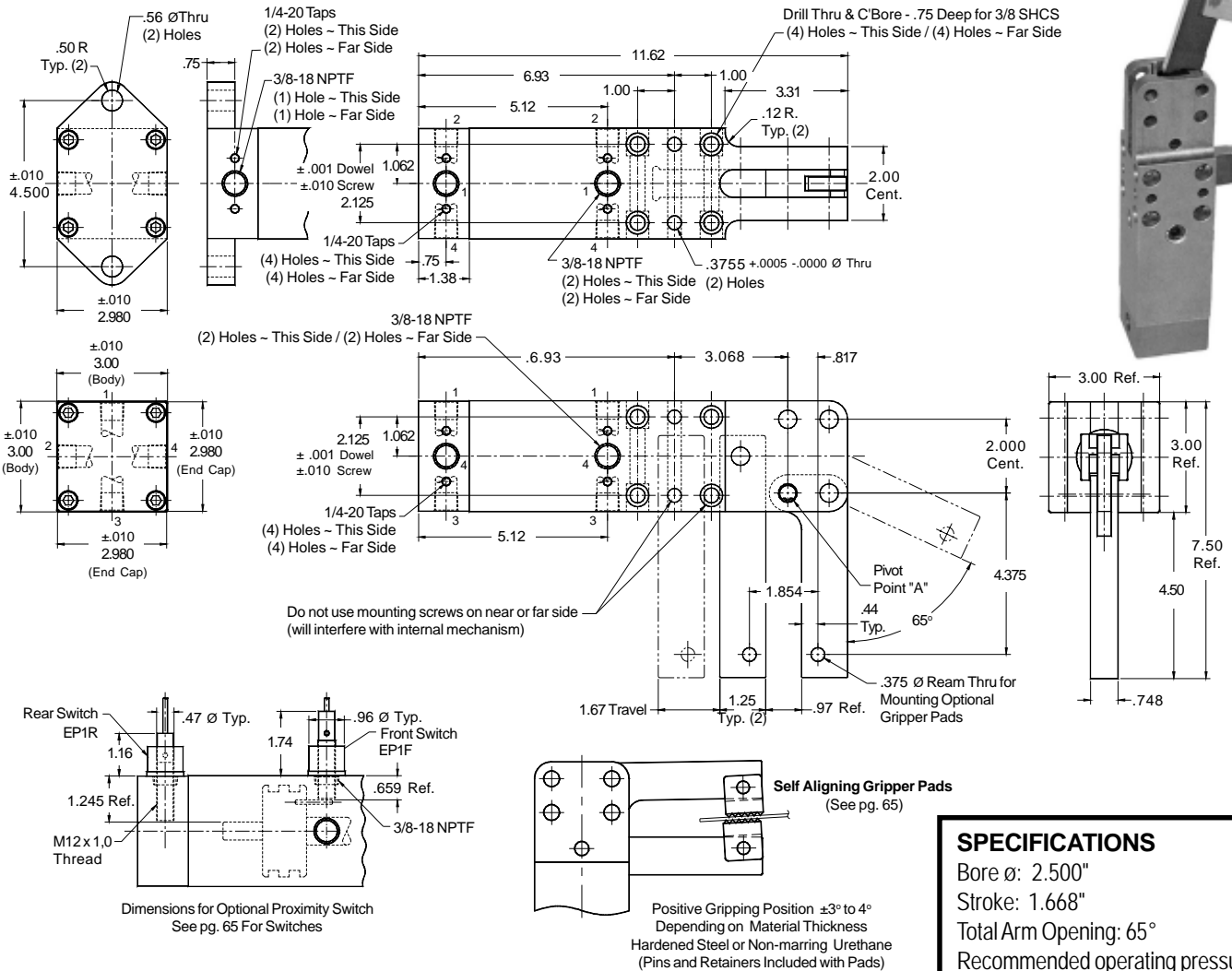
* For prox. ready ports, use:
 PR1F, PR2F, PR3F, PR4F
 PR1R, PR2R, PR3R, PR4R
 Spacers and/or adapters may be necessary.
 See pg. 66 for more information

2500 Series Power Gripper PG 2500-V65L1.67



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

CAD TEMPLATES AVAILABLE



$$\text{GRIPPING FORCE (lbs)} = 5 \times \text{LINE PRESSURE (P.S.I.)}$$

SPECIFICATIONS

Bore \varnothing : 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.

Manufactured by
BTM CORPORATION
Marysville, Michigan USA
PATENTED

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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

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

Body Mount No. 006809
Flange Mount No. 006822

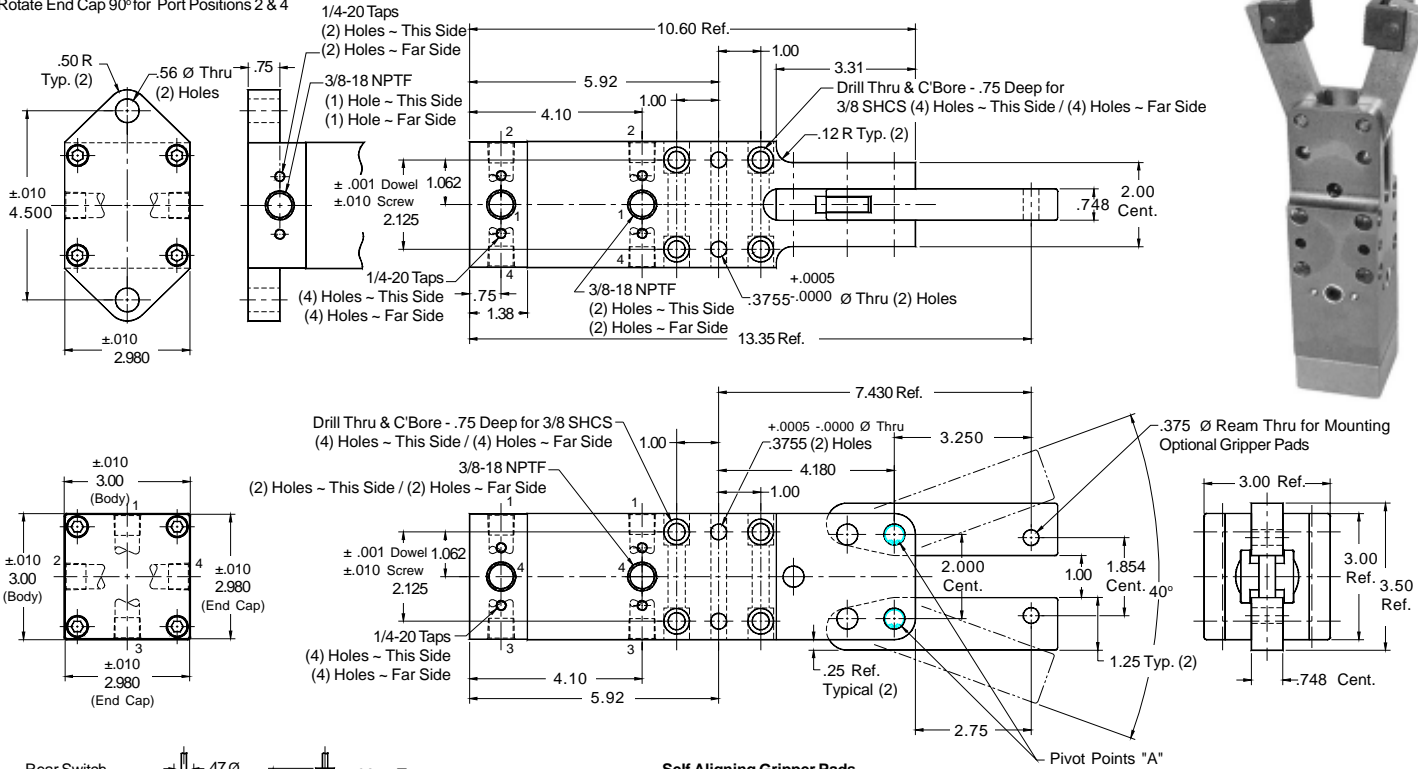
OPTIONS

Note: Ports will be in position 1 unless otherwise specified

*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

CAD TEMPLATES AVAILABLE



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.

Manufactured by
 BTM CORPORATION
 Marysville, Michigan USA
PATENTED

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) = $\frac{15 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARMS (INCHES)}}$

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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

Note: Ports will be in position 1 unless otherwise specified

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

Body Mount No. 001439
 Flange Mount No. 006813
 OPTIONS

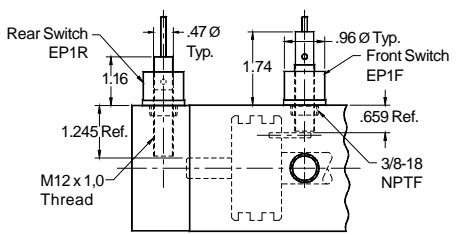
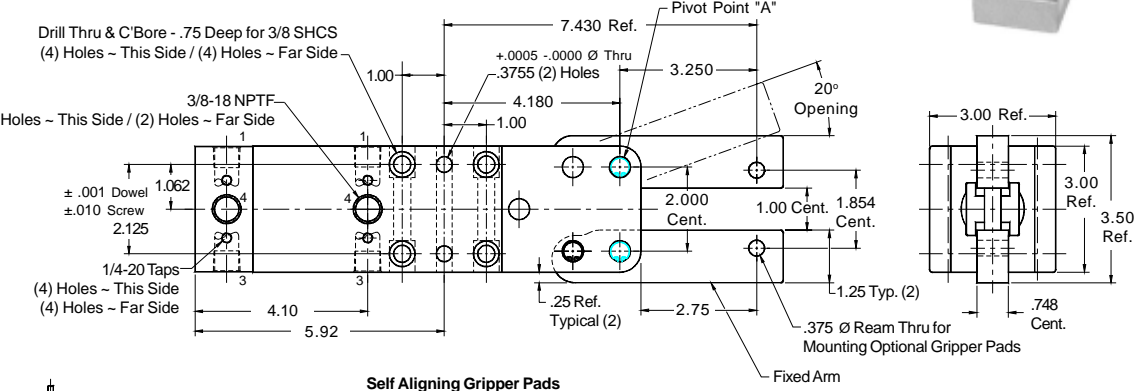
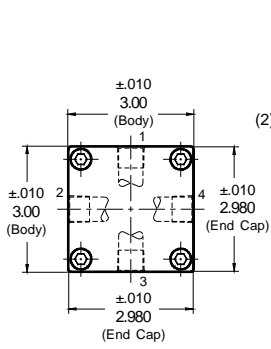
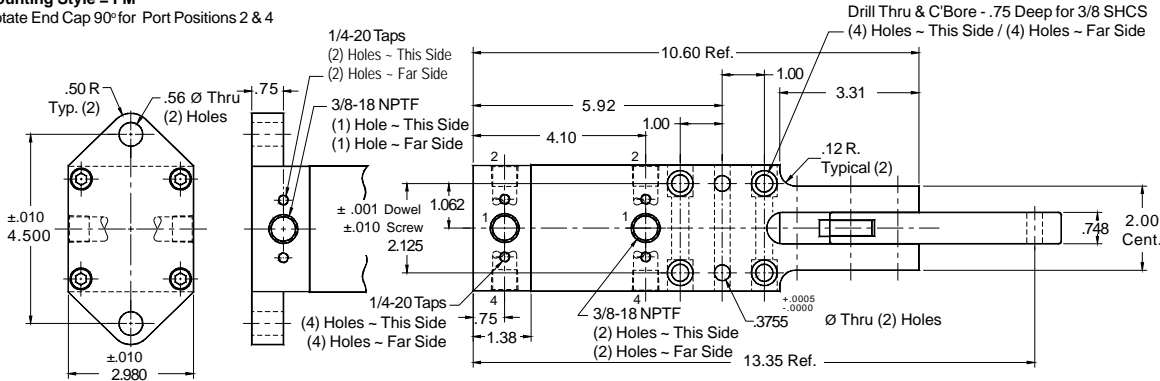
*For prox. ready ports, use:
 PR1F, PR2F, PR3F, PR4F
 PR1R, PR2R, PR3R, PR4R
 Spacers and/or adapters may be necessary.
 See pg. 66 for more information

2500 Series Power Gripper PG 2500-S 20

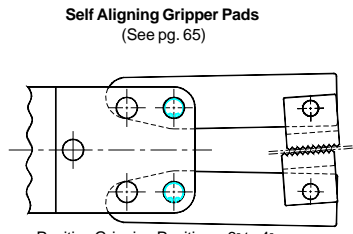


Optional Flange Mount End Cap
Mounting Style = FM
Rotate End Cap 90° for Port Positions 2 & 4

CAD TEMPLATES AVAILABLE



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)

$$\text{GRIPPING FORCE (lbs)} = \frac{15 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

SPECIFICATIONS

- Bore ø: 2.500"
- Stroke: .655"
- Total Arm Opening: 20°
- 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

- 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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

Note: Ports will be in position 1 unless otherwise specified

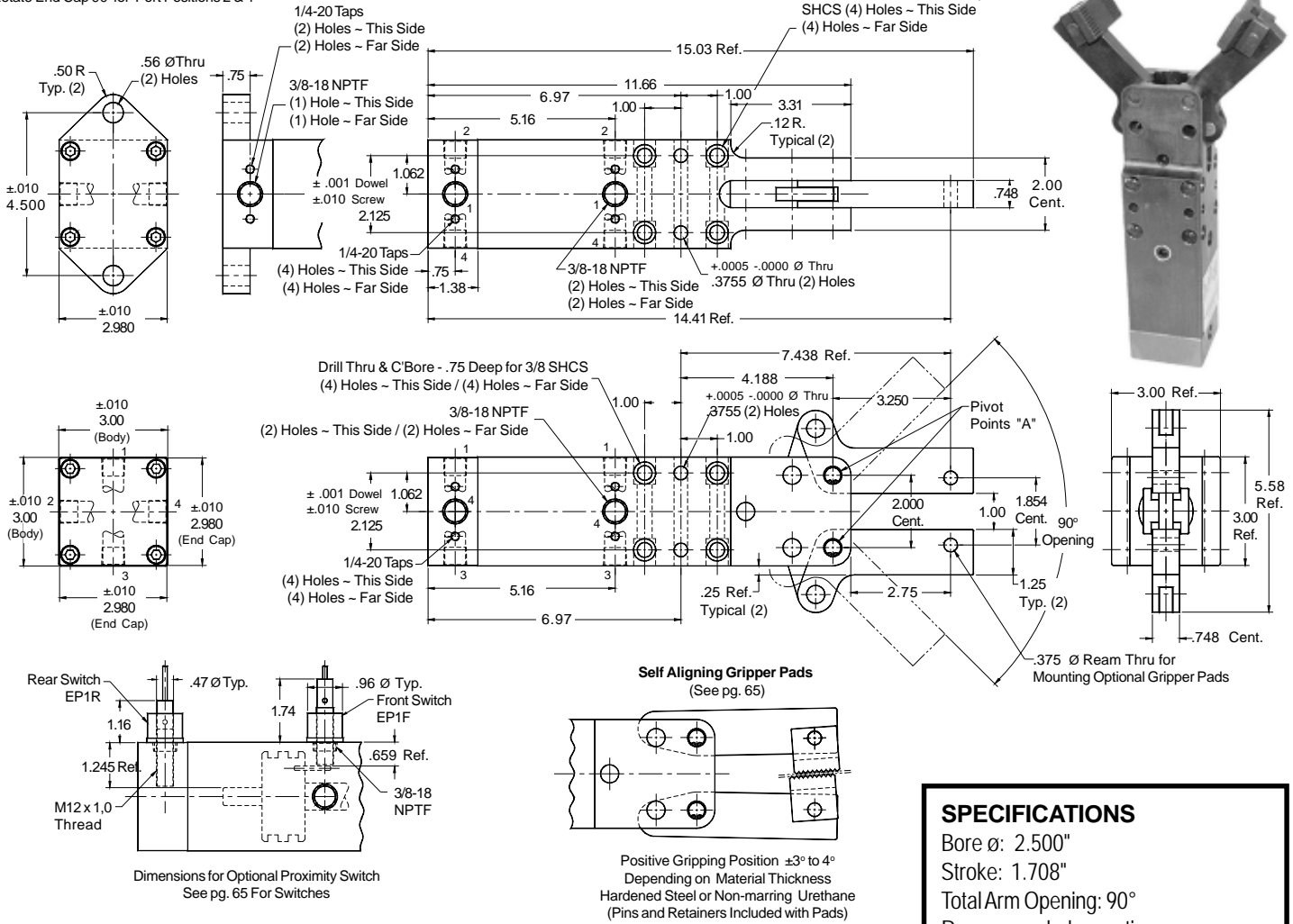
PG-2500-S20 - FM - 5284-FP4 - RP4 - EP2F - EP2R - AC

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

CAD TEMPLATES AVAILABLE



$$\text{GRIPPING FORCE (lbs)} = \frac{6 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON ARMS (INCHES)}}$$

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.



Manufactured by BTM CORPORATION
Marysville, Michigan USA
PATENTED

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

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

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

SWITCH TYPE: AC OR DC

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

Body Mount No. 006808
Flange Mount No. 006820

OPTIONS

Note: Ports will be in position 1 unless otherwise specified

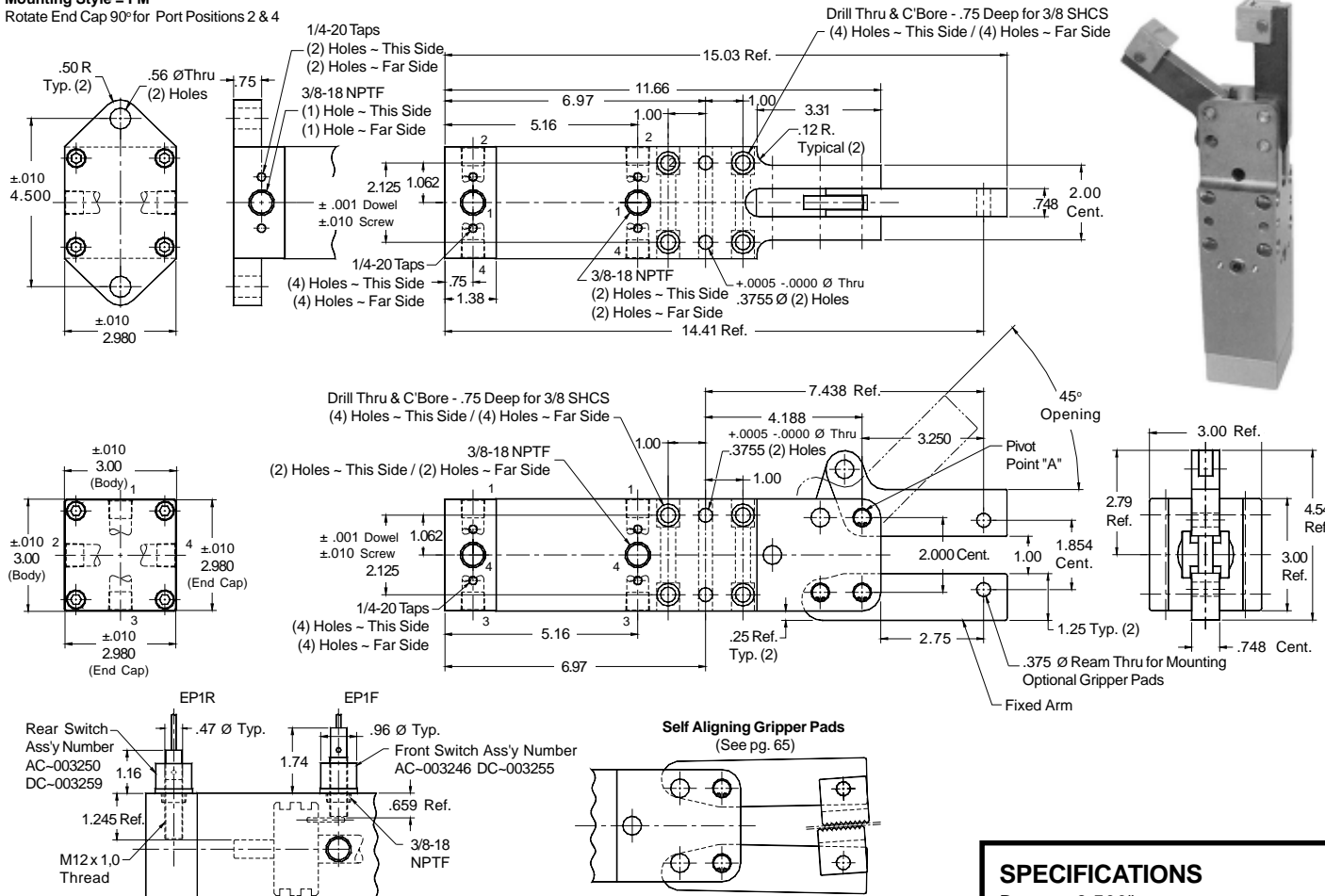
*For prox. ready ports, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R
Spacers and/or adapters may be necessary.
See pg. 66 for more information

2500 Series Power Gripper PG 2500-S 45



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

CAD TEMPLATES AVAILABLE



Dimensions for Optional Proximity Switch
See pg. 65 For Switches

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

$$\text{GRIPPING FORCE (lbs)} = \frac{6 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

SPECIFICATIONS

Bore \varnothing : 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.

Manufactured by
BTM CORPORATION
Marysville, Michigan USA
PATENTED

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
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

Note: Ports will be in position 1 unless otherwise specified

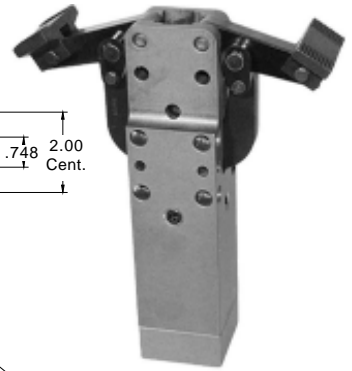
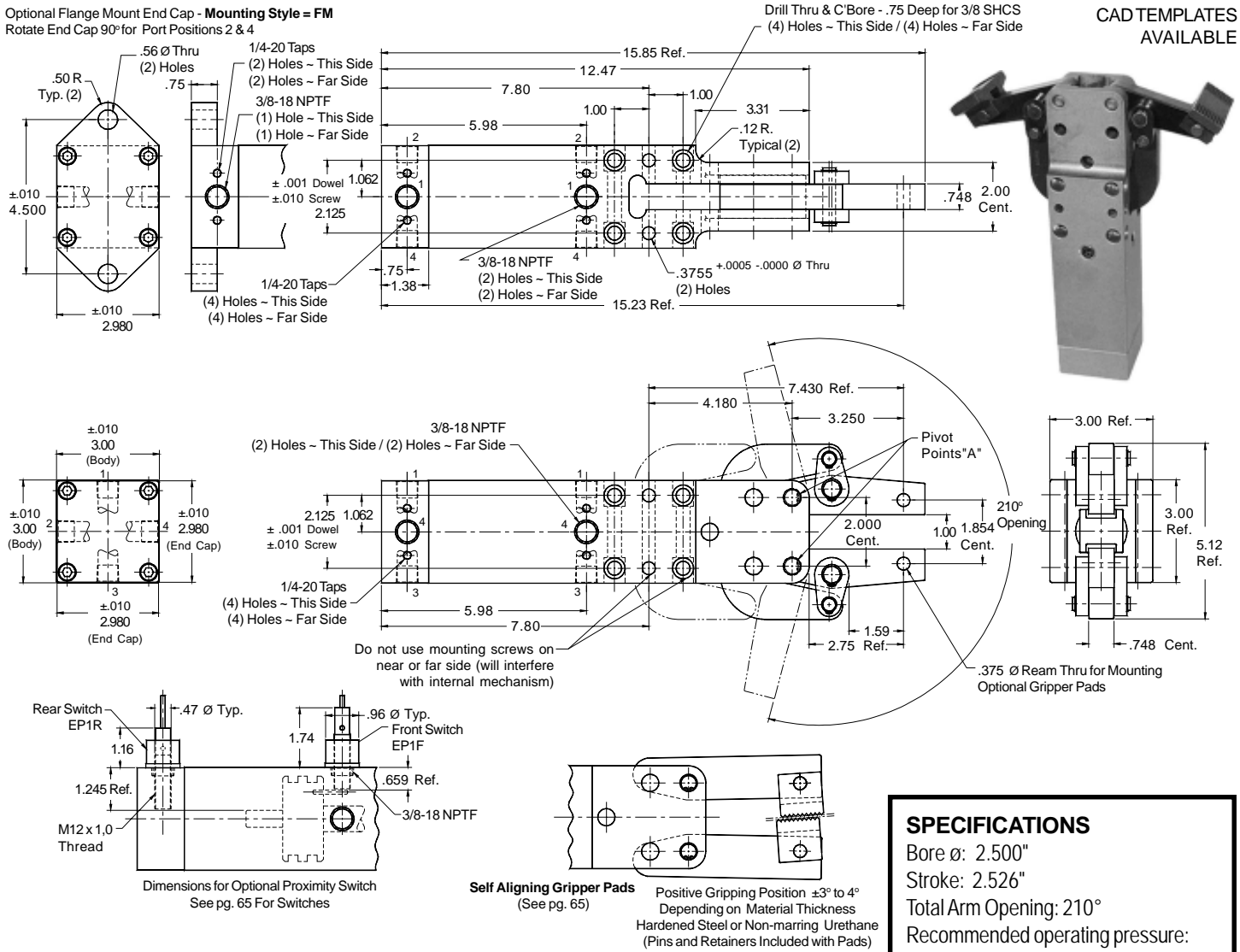
PG-2500-S45 - FM - 5284-FP4 -RP4 -EP2F -EP2R -AC

Body Mount No. 006807 OPTIONS
Flange Mount No. 006818

* 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

CAD TEMPLATES
 AVAILABLE



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.

$$\text{GRIPPING FORCE (lbs)} = \frac{10 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARMS (INCHES)}}$$



Note: Ports will be in position 1 unless otherwise specified

HOW TO ORDER

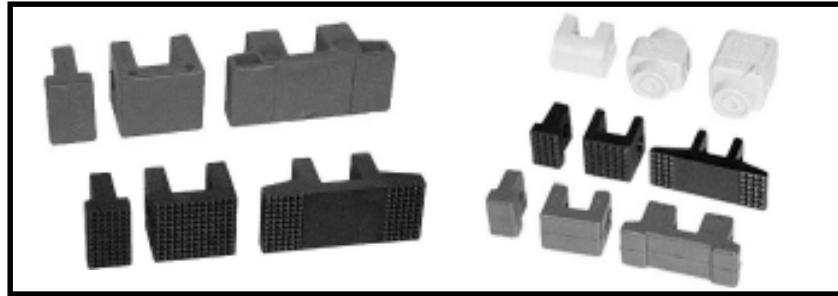
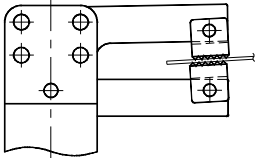
- POWER GRIPPER
- 2500 SERIES: 2.5" BORE
- ARM OPENING: D210 (DOUBLE 210° OPENING)
- FM (FLANGE MOUNT) or BM (BODY MOUNT)
- GRIPPER PADS: 5284, 5285, 5287, 5288, 5290, 5291 (pg. 65)
- FRONT PORT POSITION: FP1, FP2, FP3, FP4
- REAR PORT POSITION: RP1, RP2, RP3, RP4
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R *
- SWITCH TYPE: AC OR DC

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

Body Mount No. 006355
 Flange Mount No. 006816
 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

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



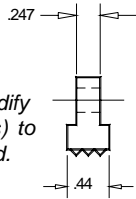
Available in Hardened Steel or Non-Marring Urethane.
 (Sold individually - pins & retainers included.)

1500 Series Gripper Pads

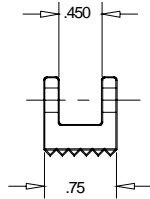
Steel Pads

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

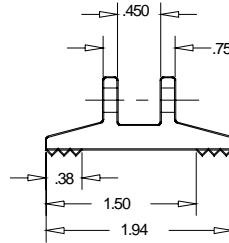
BTM will modify gripper arm(s) to fit Thin Pad.



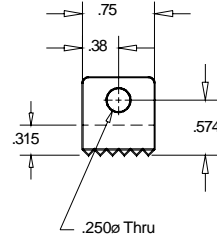
THIN PAD
005019



FULL PAD
005020



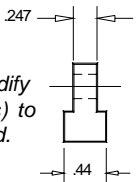
DOUBLE PAD
005021



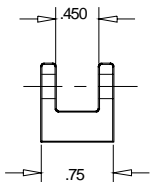
END VIEW
TYPICAL

Urethane Pads

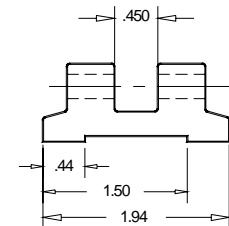
BTM will modify gripper arm(s) to fit Thin Pad.



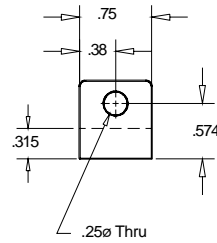
THIN PAD
005273



FULL PAD
005272



DOUBLE PAD
005271

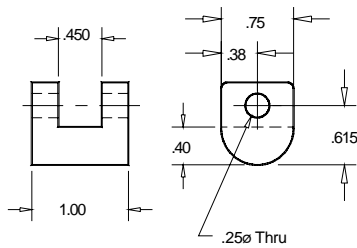


END VIEW
TYPICAL

Special Urethane Pads

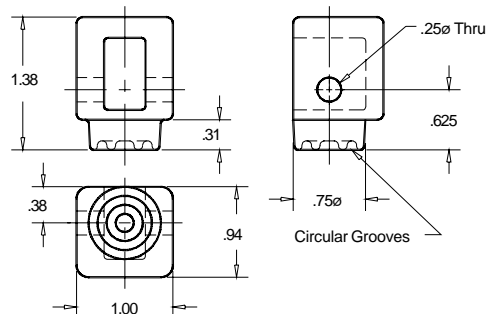
RADIUS PAD

012742-O
 HARD URETHANE (Class 90A)
 012742-Y
 SOFT URETHANE (Class 60A)



ROUND SOFT PAD

SOFT URETHANE (Class 60A)
 017490

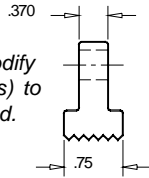


2500 Series Gripper Pads

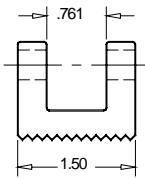
Steel Pads

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

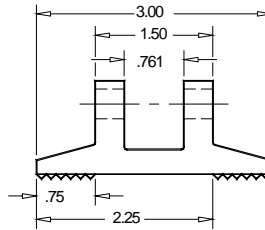
BTM will modify gripper arm(s) to fit Thin Pad.



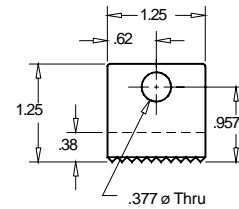
THIN PAD
005284



FULL PAD
005290



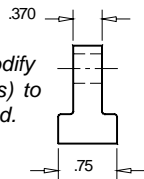
DOUBLE PAD
005287



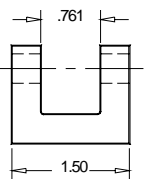
END VIEW TYPICAL

Urethane Pads

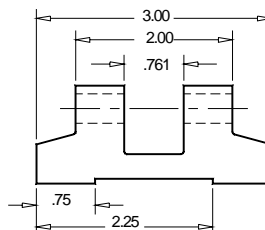
BTM will modify gripper arm(s) to fit Thin Pad.



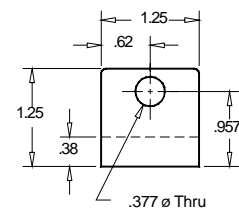
THIN PAD
005285



FULL PAD
005291



DOUBLE PAD
005288

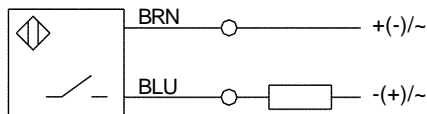


END VIEW TYPICAL

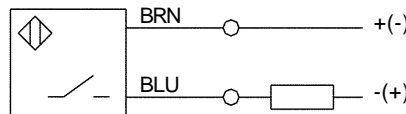
Proximity Switches for 100, 1500 & 2500 Series Grippers



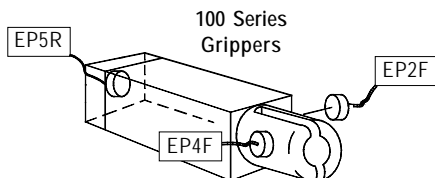
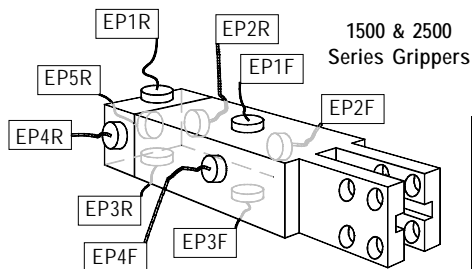
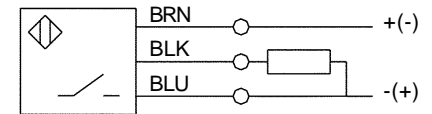
AC ~ Normally Open (12mm)
Supply Voltage: 20-250 VAC
Load Current Max.: 5-30mA
Supplied w/ 3 meter - 2 wire cable.



DC ~ Normally Open (12mm)
Sourcing or Sinking
Supply Voltage: 10-55 VDC
Load Current Max.: 5-200mA
Supplied w/ 3 meter - 2 wire cable.



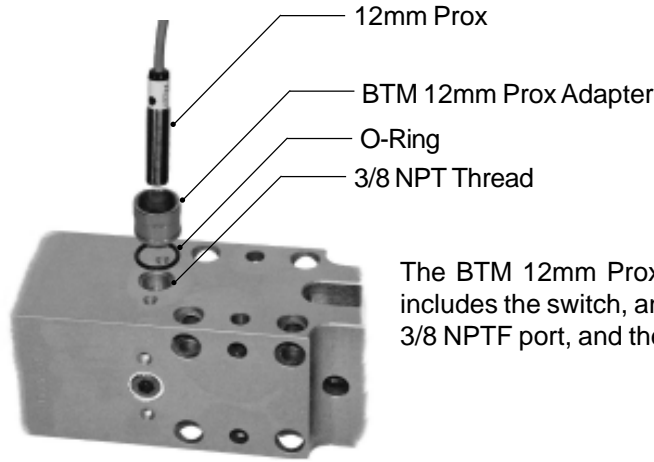
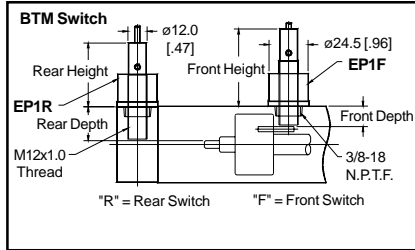
DC ~ Normally Open (8mm)
Sourcing
Supply Voltage: 10-30 VDC
Load Current Max.: ≤200mA
Supplied w/ 3 meter - 3 wire cable.



		AC SWITCH ASSEMBLIES				DC SWITCH ASSEMBLIES			
		1500	2500	100 OMNI	1500 OMNI	1500	2500	100 OMNI	1500 OMNI
Senses gripper in OPEN position	EP1R	003176	003250	n/a	018067	003241	003259	n/a	018068
	EP2R	003176	003250	n/a	018067	003241	003259	n/a	018068
	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
Senses gripper in CLOSED position	EP1F	003172	003246	n/a	018069	003237	003255	n/a	018070
	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

BTM 12mm Prox Switch

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



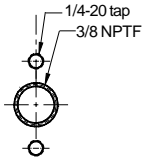
The BTM 12mm Prox Switch Assembly includes the switch, an adapter for the 3/8 NPTF port, and the o-ring seal.

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)

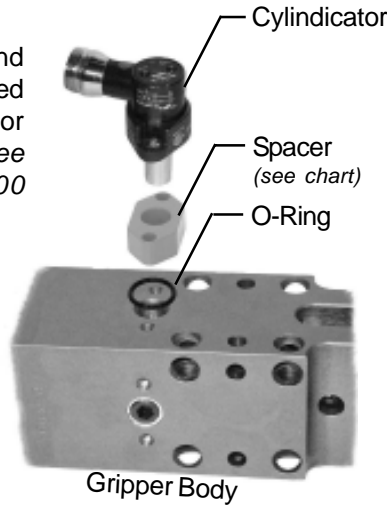
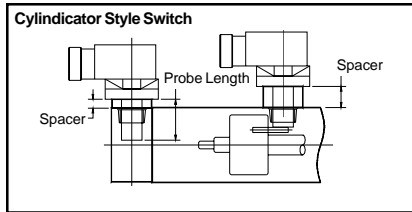
Cylindicator Mounting

NOTE: BTM does not provide cylindicators.

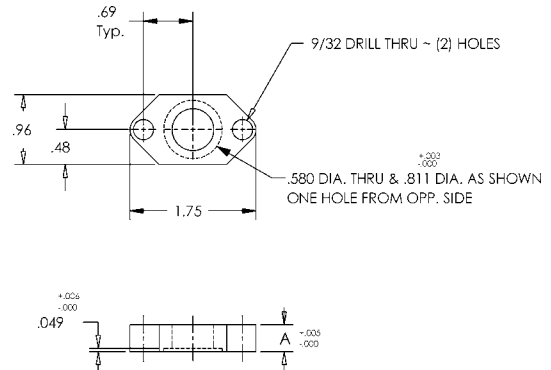
To order the gripper prox ready only for a Cylindicator Style switch, you may need to order a spacer which mounts between the cylindicator mounting face and the gripper body. Use the chart below to determine the appropriate spacer required based on the cylindicator probe length.



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.

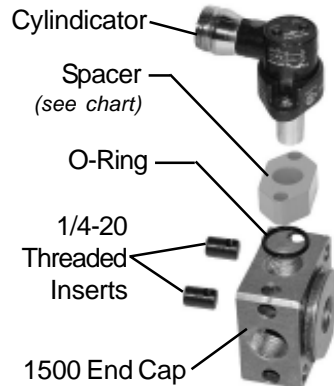


Cylindicator Spacer



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.



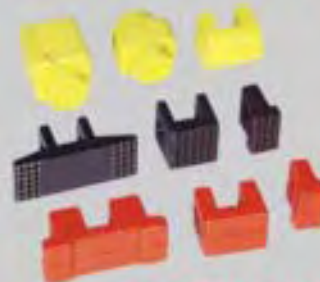
BTM No	Clamp Series	Position	"A" Dimension	Probe Length
013643	1500	FRONT	0.427	0.915
006013	1500	FRONT	0.470	0.950
015993	1500	FRONT	0.530	1.025
016261	1500	FRONT	0.762	1.250
013644	1500	REAR	0.094	0.915
006012	1500	REAR	0.135	0.950
015992	1500	REAR	0.205	1.025
016057	2500	FRONT	0.379	1.025
006595	2500	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



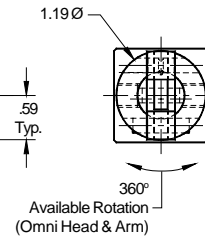
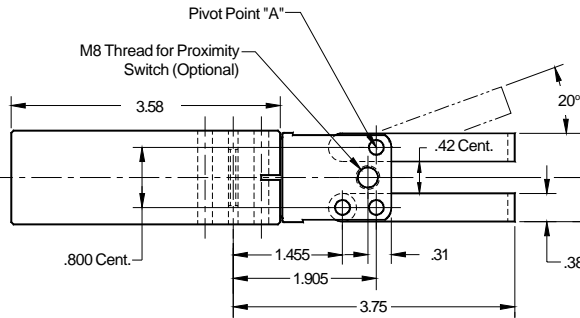
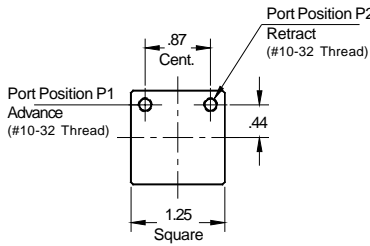
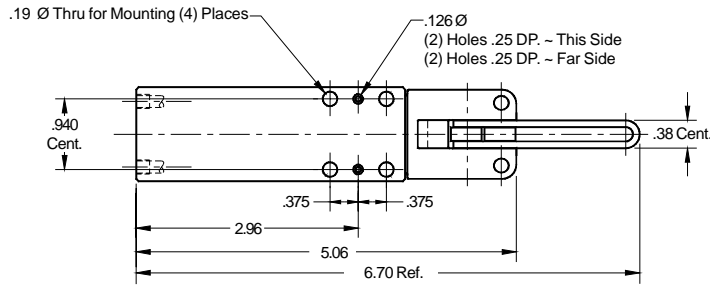
STANDARD PADS



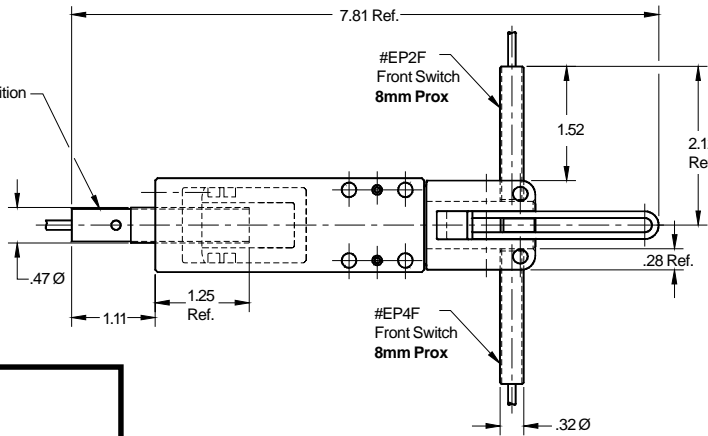
CUSTOM PADS AVAILABLE

BTM
CORPORATION

CAD TEMPLATES AVAILABLE

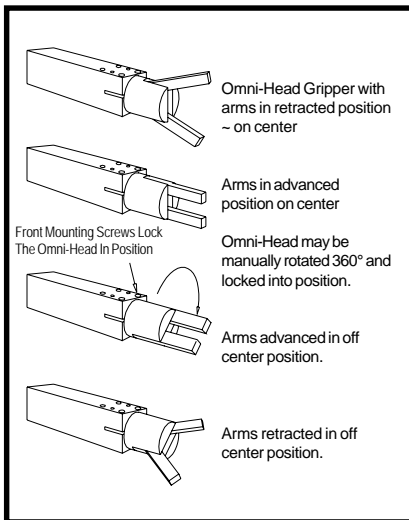


The omni head locks into position when the clamp mounting screws are tightened.



See pg. 65 For Proximity Switches

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



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

HOW TO ORDER

POWER GRIPPER OMNI (PGO)

100 SERIES: 1.00 Bore

ARM OPENING: S20 (SINGLE 20° OPENING)

FRONT ELECTRIC PROXIMITY POSITION: EP2F, EP4F*

SWITCH TYPE: DC ONLY

REAR ELECTRICAL PROXIMITY POSITION: EP5R*

SWITCH TYPE: AC OR DC

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

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

BTM No. 002858

OPTIONS

See pg. 65 for prox switch information

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.

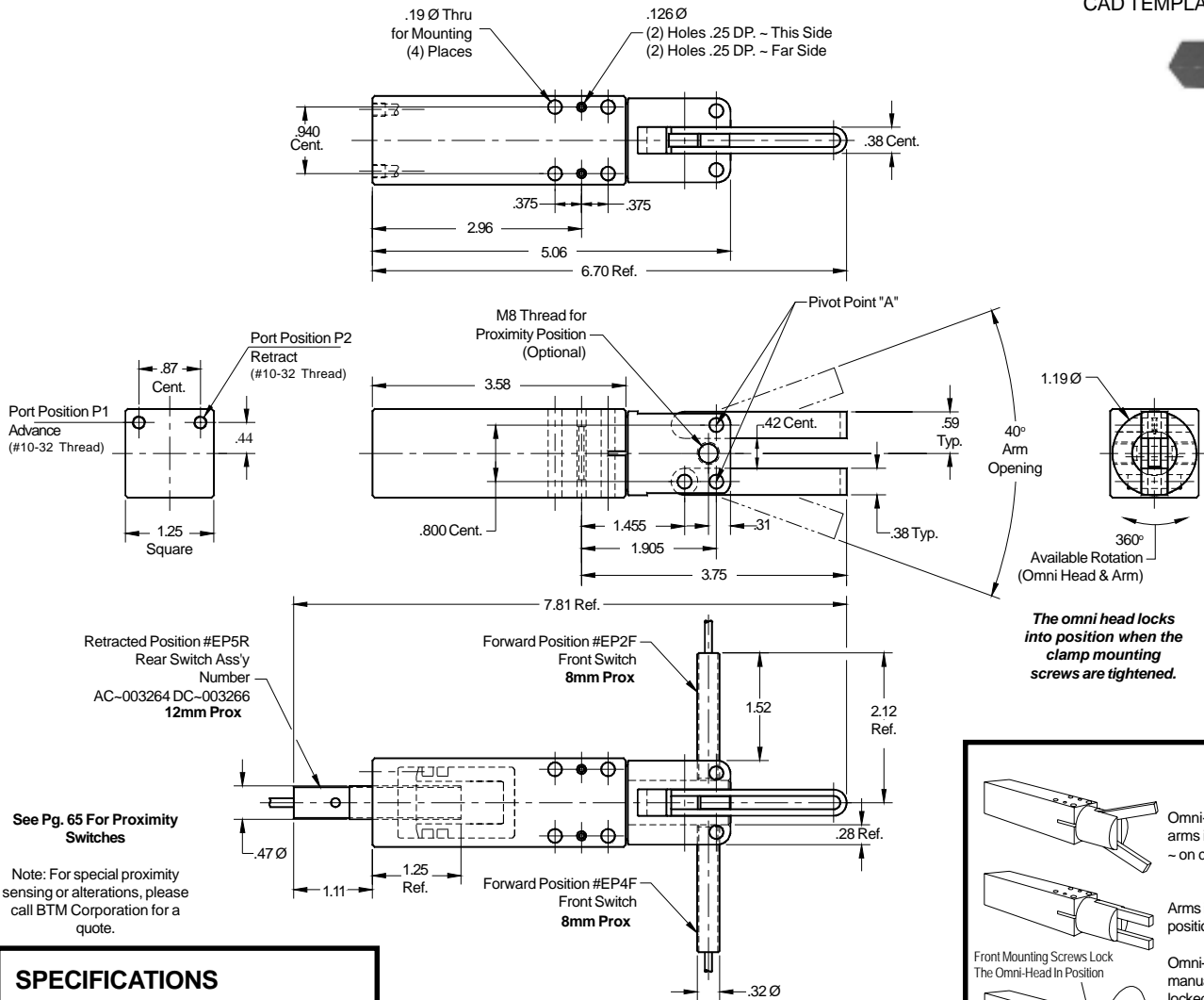


Manufactured by
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Marysville, Michigan USA
PATENTED

100 Series Omni Gripper PGO-100-D40

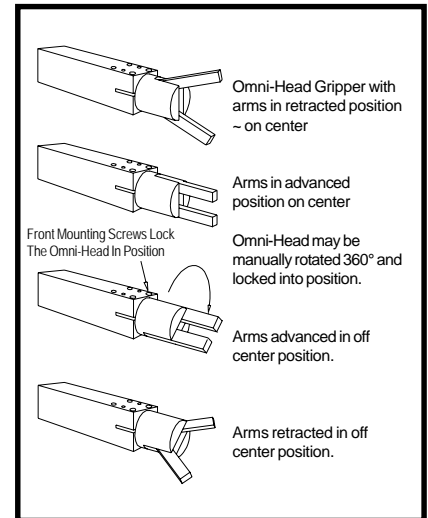


CAD TEMPLATES AVAILABLE



See Pg. 65 For Proximity Switches

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



SPECIFICATIONS

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



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Marysville, Michigan USA
PATENTED

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

HOW TO ORDER

POWER GRIPPER OMNI (PGO)

100 SERIES: 1.00 BORE

ARM OPENING: D40 (DOUBLE 40° OPENING)

FRONT ELECTRICAL PROXIMITY POSITION: EP2F, EP4F *

SWITCH TYPE: DC ONLY

REAR ELECTRICAL PROXIMITY POSITION: EP5R *

SWITCH TYPE: AC OR DC

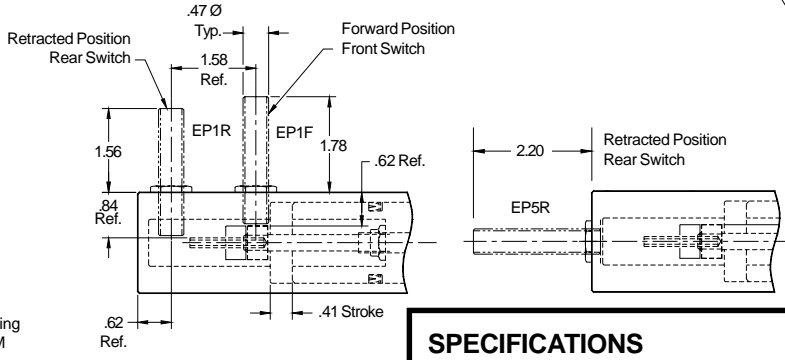
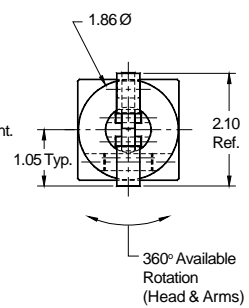
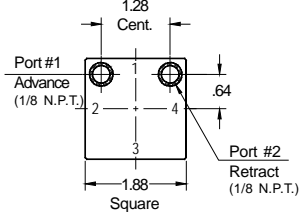
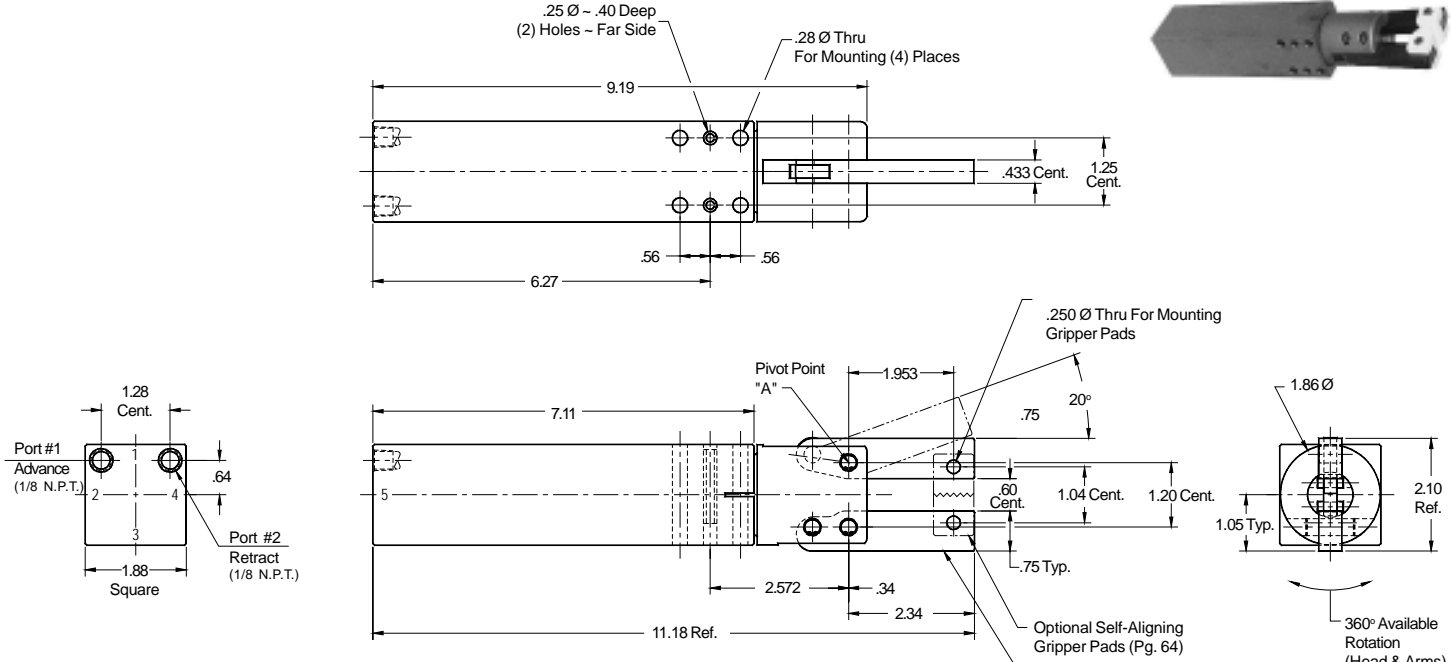
* For prox. ready ports, use:
PR2F, PR4F, PR5R

PGO-100-D40 - EP2F-DC-EP5R-AC

BTM No. 002859

OPTIONS

See pg. 65 for prox switch information



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.

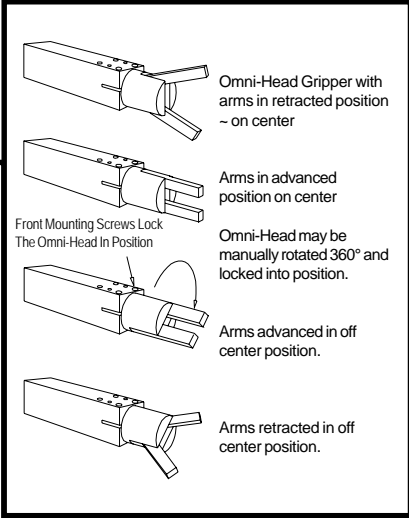
$$\text{CLAMP FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

SPECIFICATIONS

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



Manufactured by BTM CORPORATION
Marysville, Michigan USA



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)
- FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F *
- REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R, EP5R *
- SWITCH TYPE: AC OR DC

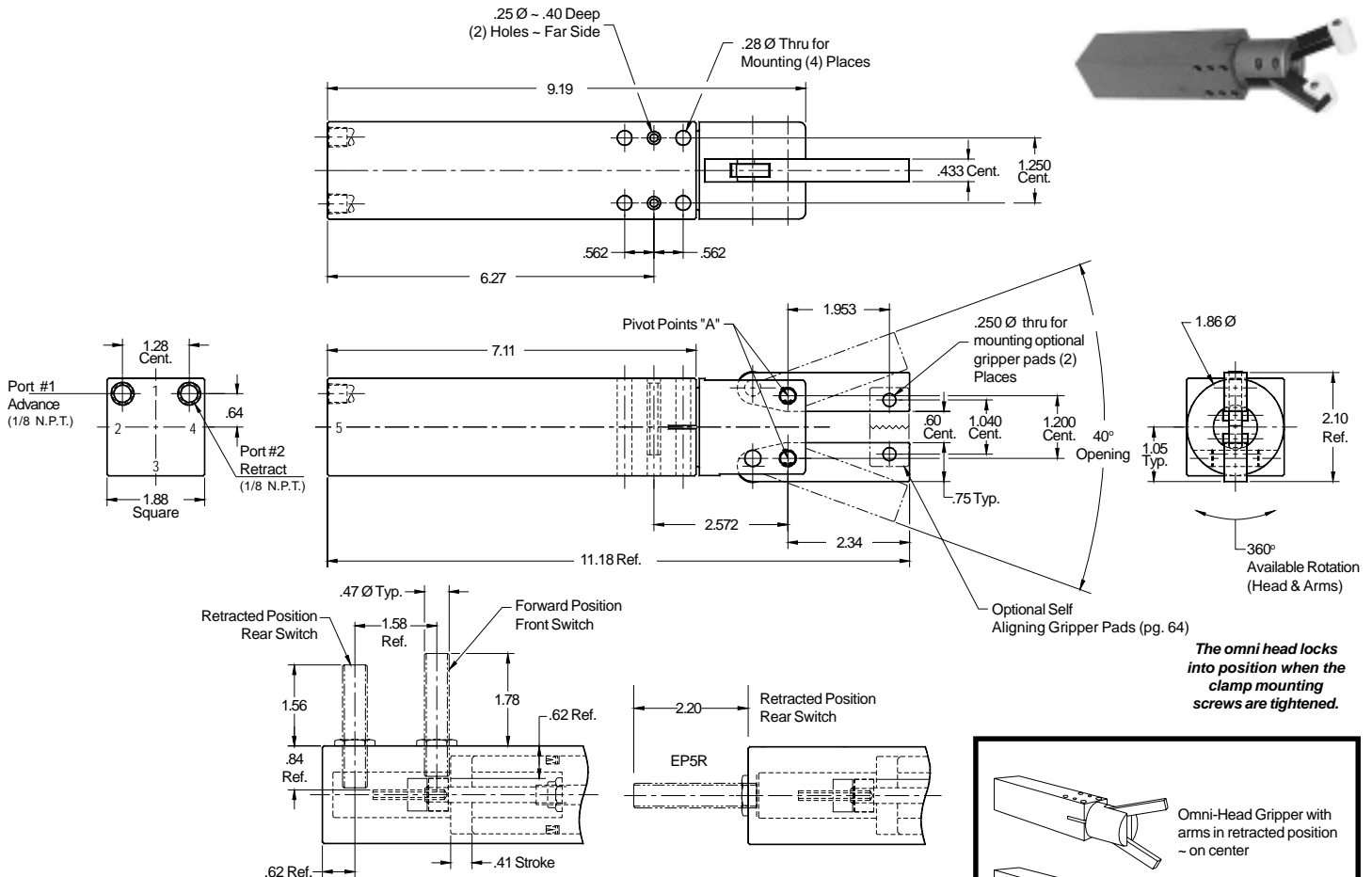
*For prox. ready locations, use:
PR1F, PR2F, PR3F, PR4F
PR1R, PR2R, PR3R, PR4R, PR5R

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

1500 Series Omni Gripper PGO-1500-D40



CAD TEMPLATES AVAILABLE



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

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.

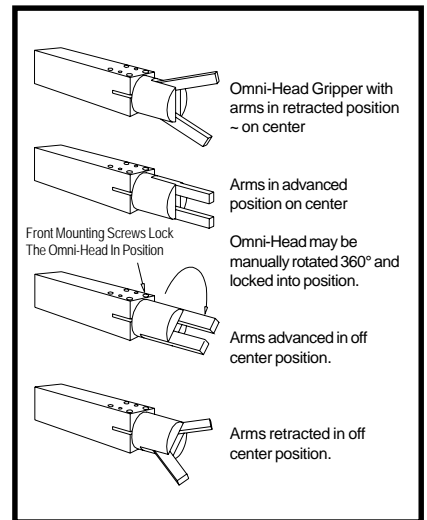


Manufactured by
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Marysville, Michigan USA
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See pg. 65 For Proximity Switches

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

$$\text{CLAMP FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$



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)
FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F*
REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R, EP5R*
SWITCH TYPE: AC OR DC

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

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

BTM No. 017551

OPTIONS

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