PG-38 Grippers





STANDARD PADS



CUSTOM PADS AVAILABLE

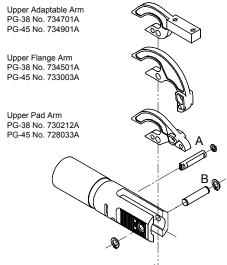




Common Body Multiple Configurations

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

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



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

PG-38 No. 734502A PG-45 No. 733004A

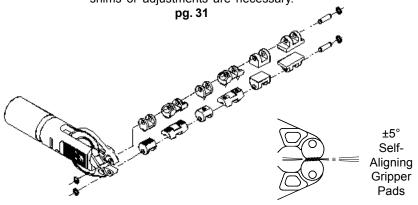
Lower Opening Adaptable Arm

PG-38 No. 734702A PG-45 No. 734902A

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

Interchangeable Gripper Pads

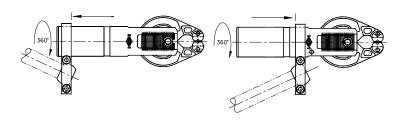
Pads are common between 38 & 45 models. The pads rotate ±5° to "find" the part. No shims or adjustments are necessary.



Flexible Mounting

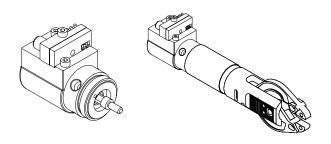
The round body design and tube mount provides 360° rotation, swiveling and linear adjustment. The 1" tube mount uses a hardened steel swivel with serrated surfaces to provide a positive locked position. Patent No 5,647,625.

pg. 32



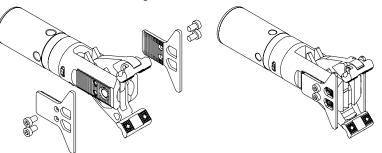
Proximity Switches

Integrated switch package pp. 33-34



Part Stops (PS)

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



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

Pg. 6

PG-38 Locking Grippers





Locking Grip

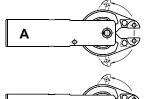
Roller finds detent on the cam surface to hold the part if air pressure is lost.

Adjustable Opening

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



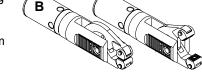
ARM STYLES



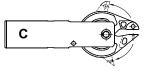
В

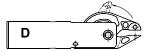


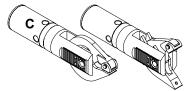
Double Opening Pad Arms 30°, 45° or 75° opening per arm **PG-38 A** pg. 8



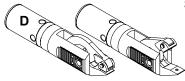
Single Opening Fixed Pad Arm 30°, 45° or 75° opening PG-38 B pg. 9



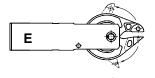


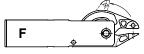


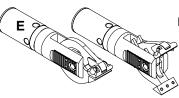
Double Opening Single Chisel Arm 30°, 45° or 75° opening per arm **PG-38 C** pg. 10



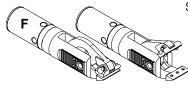
Single Opening Fixed
Single Chisel Arm
30°, 45° or 75°
opening
PG-38 D
pg. 11



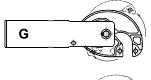


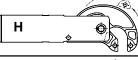


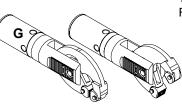
Double Opening
Double Chisel Arm
30°, 45° or 75°
opening per arm
PG-38 E
pg. 12



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

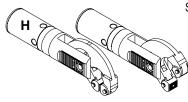




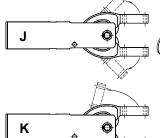


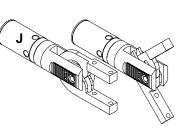
Double Opening
Flange Pad Arms
30°, 45° or 75°
upper arm opening
16°, 22° or 45°
lower arm opening
PG-38 G

pg. 14

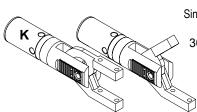


Single Opening Fixed Flange Pad Arms 30°, 45° or 75° opening PG-38 H pg. 15





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

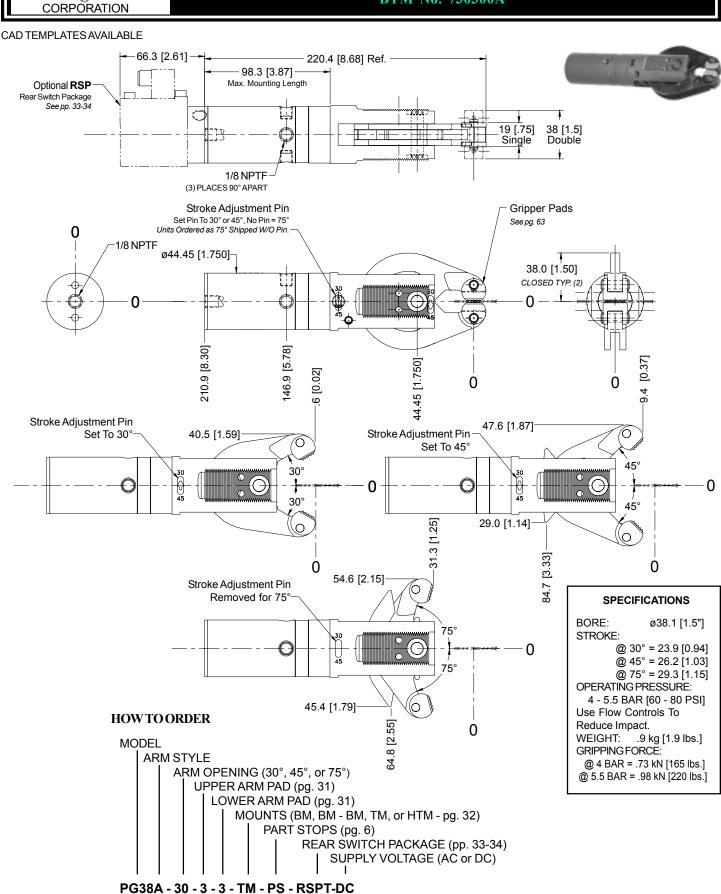


BTM No. 730300A

Pg. 8

PG-38A ~ Double Opening ~ Pad Arms

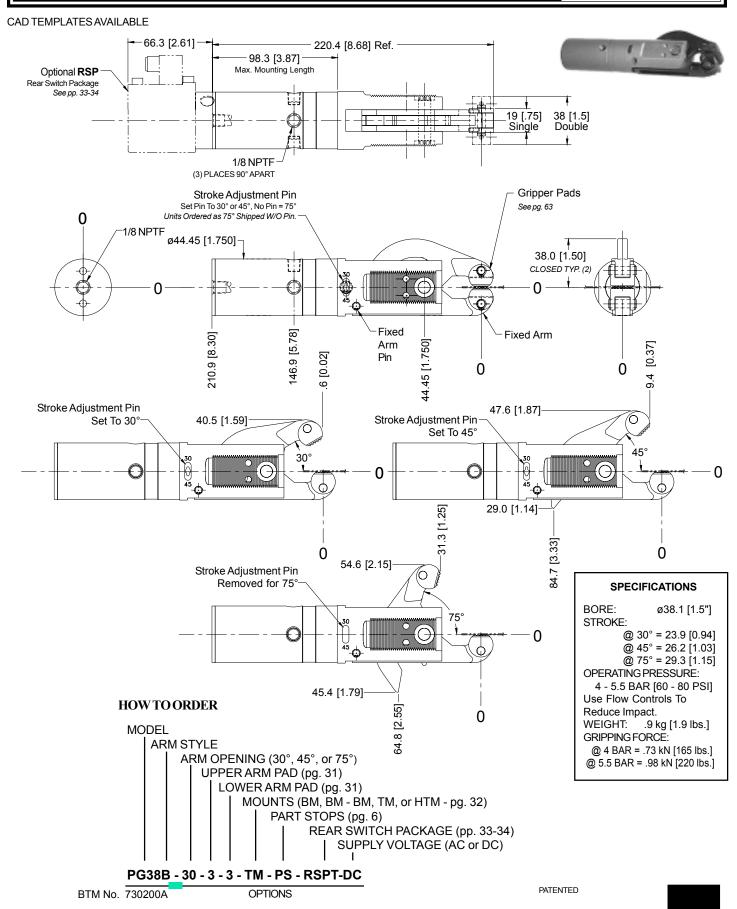
BTM No. 730300A



OPTIONS

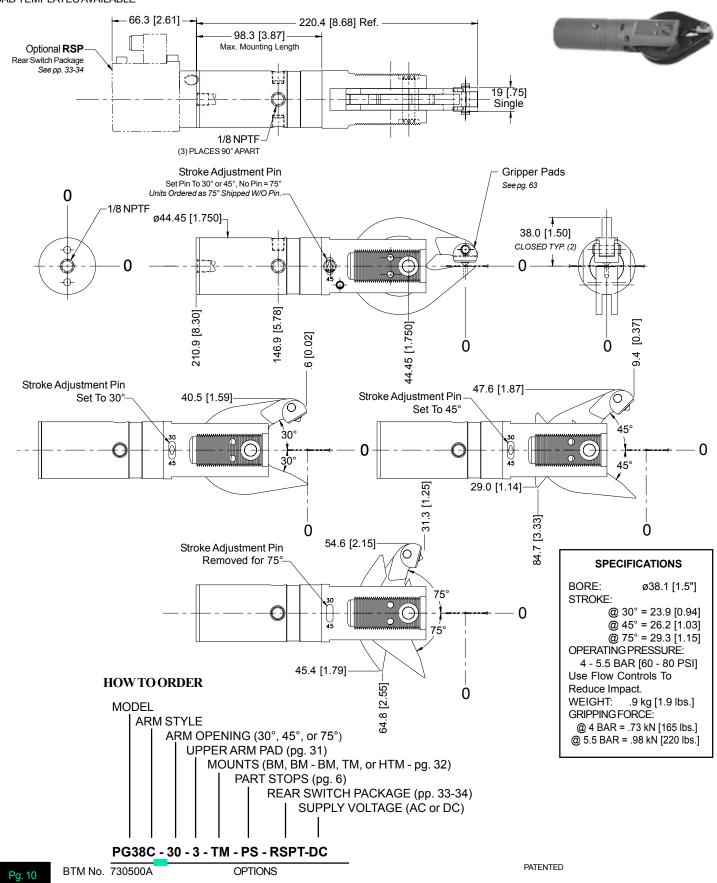
PATENTED







PG-38C ~ Double Opening ~ Single Chisel Arm BTM No. 730500A



CAD TEMPLATES AVAILABLE -66.3 [2.61] 220.4 [8.68] Ref. 98.3 [3.87] Optional RSP Max. Mounting Length Rear Switch Package See pp. 33-34 19 [.75] Single 1/8 NPTF (3) PLACES 90° APART Stroke Adjustment Pin **Gripper Pads** Set Pin To 30° or 45°, No Pin = 75° Units Ordered as 75° Shipped W/O Pin. See pg. 63 0 1/8 NPTF ø44.45 [1.750] 38.0 [1.50] CLOSED TYP. (2) Fixed Arm Fixed 146.9 [5.78] 210.9 [8.30] Arm [0.37] 44.45 [1.750] Pin 6 [0.02] 0 Ó 4.6 Stroke Adjustment Pin 47.6 [1.87] Stroke Adjustment Pin Set To 30° 40.5 [1.59] 0 0 Set To 45° 45° 30° 0 29.0 [1.14] 31.3 [1.25] 84.7 [3.33] 0 0 54.6 [2.15] Stroke Adjustment Pin Removed for 75° **SPECIFICATIONS** BORE: ø38.1 [1.5"] 75° STROKE: @ 30° = 23.9 [0.94] 0 $@45^{\circ} = 26.2[1.03]$ @ 75° = 29.3 [1.15] OPERATING PRESSURE: 4 - 5.5 BAR [60 - 80 PSI] 45.4 [1.79] Use Flow Controls To **HOW TO ORDER** Reduce Impact. 64.8 [2.55] 0 WEIGHT: .9 kg [1.9 lbs.] MODEL GRIPPING FORCE: ARM STYLE @ 4 BAR = .73 kN [165 lbs.] ARM OPENING (30°, 45°, or 75°) @ 5.5 BAR = .98 kN [220 lbs.] 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)

PATENTED

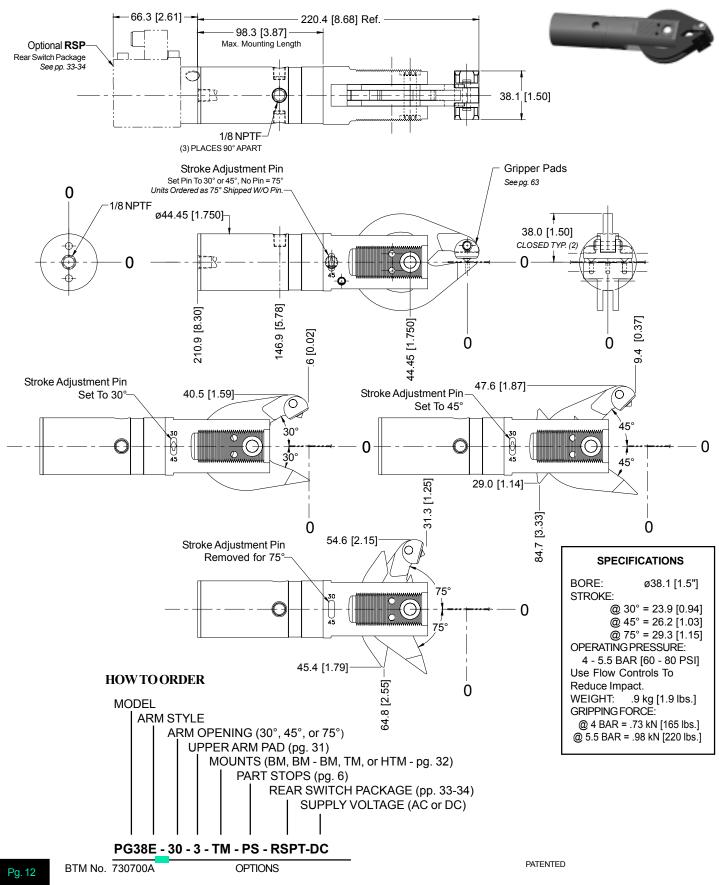
PG38D - 30 - 3 - TM - PS - RSPT-DC

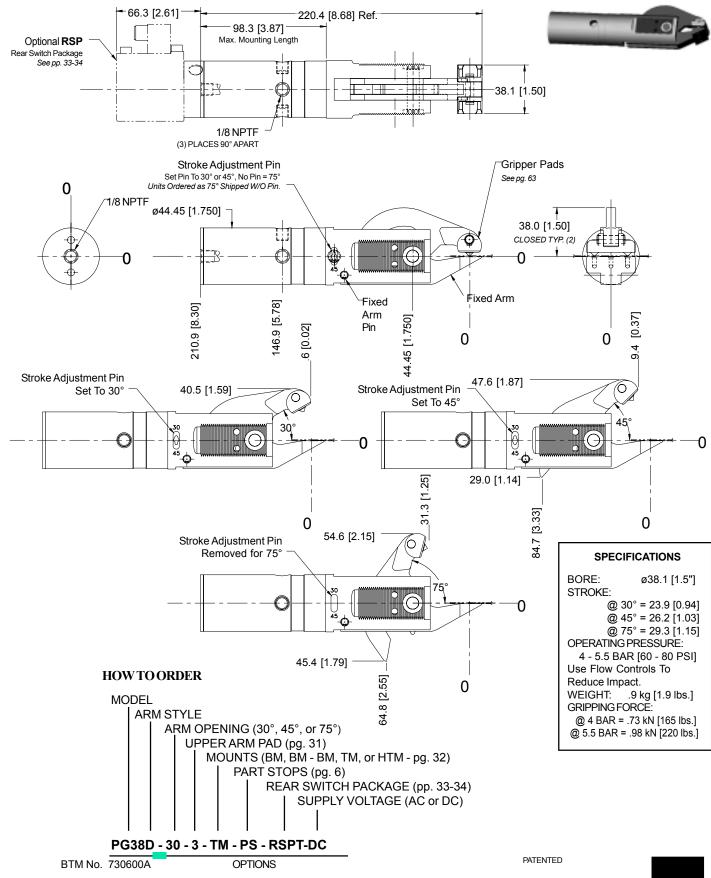
OPTIONS

BTM No. 730400A

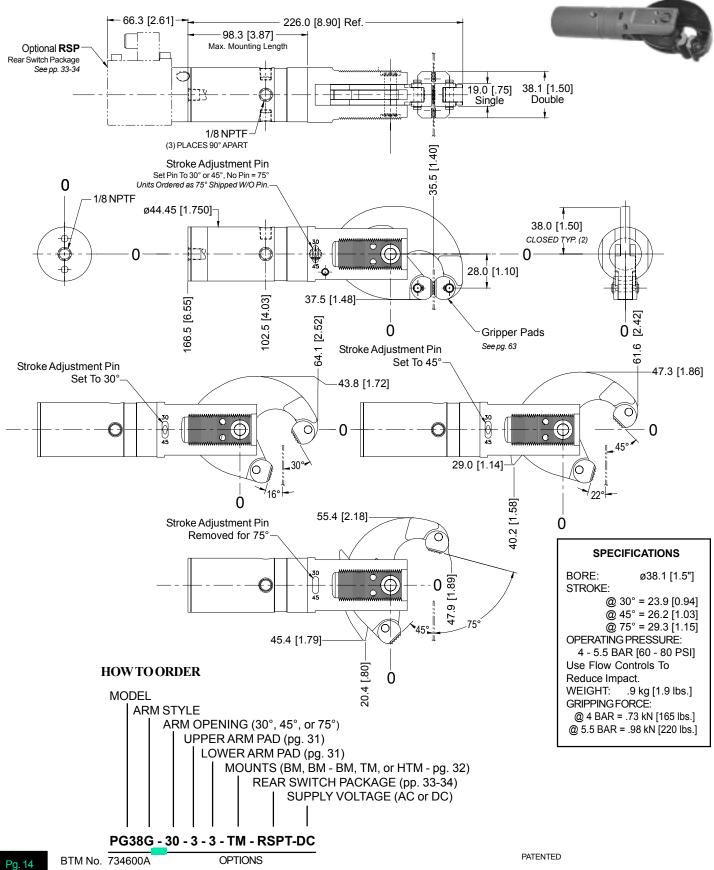


PG-38E Double Opening ~ Double Chisel Arm



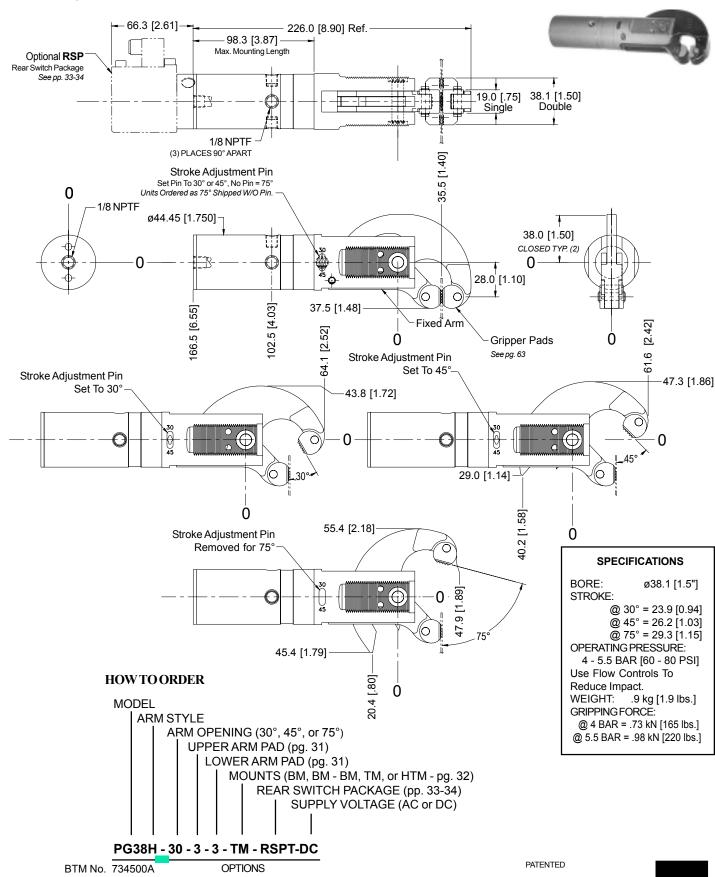






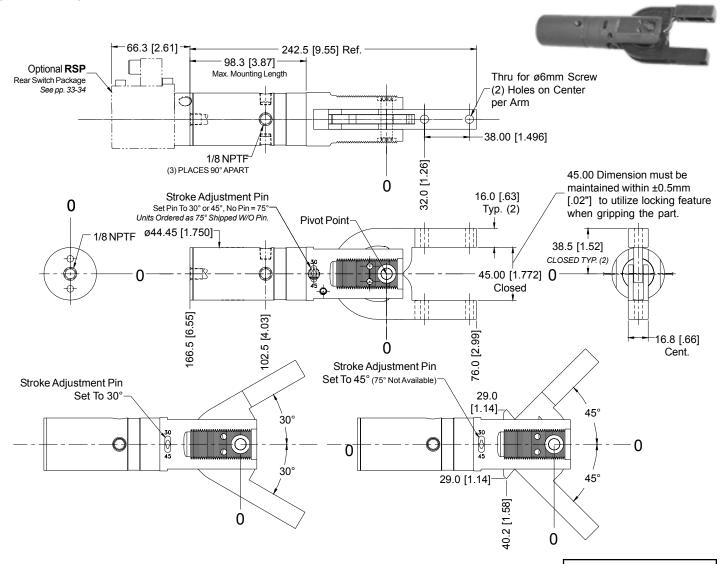
PG-38H ~ Single Opening ~ Flange Pad Arms PG-38H BTM No. 734500A







CAD TEMPLATES AVAILABLE



75° Opening Gripper Not Available

REAR SWITCH PACKAGE (pp. 33-34)

SUPPLY VOLTAGE (AC or DC)

SPECIFICATIONS

BORE: ø38.1 [1.5"]

STROKE:

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

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

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

Use Flow Controls To

Reduce Impact. WEIGHT: .9 kg [1.9 lbs.]

GRIPPING FORCE (lbs.) =

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

Center Of Gripping Contact

GRIPPING FORCE (N) =

7300 X Line Pressure (Bars)

Center Of Gripping Contact

Length (mm) From Pivot Point To

PG38J - 30 - TM - PS - RSPT-DC BTM No. 734800A **OPTIONS**

ARM OPENING (30° or 45°)

PART STOPS (pg. 6)

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

HOW TO ORDER

ARM STYLE

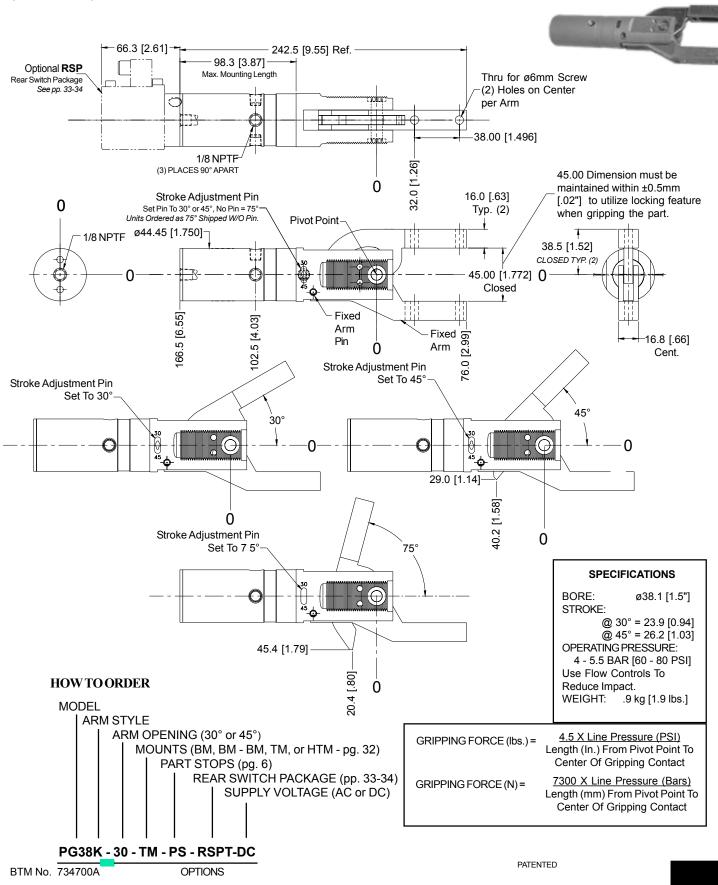
MODEL

Pg. 16

PATENTED

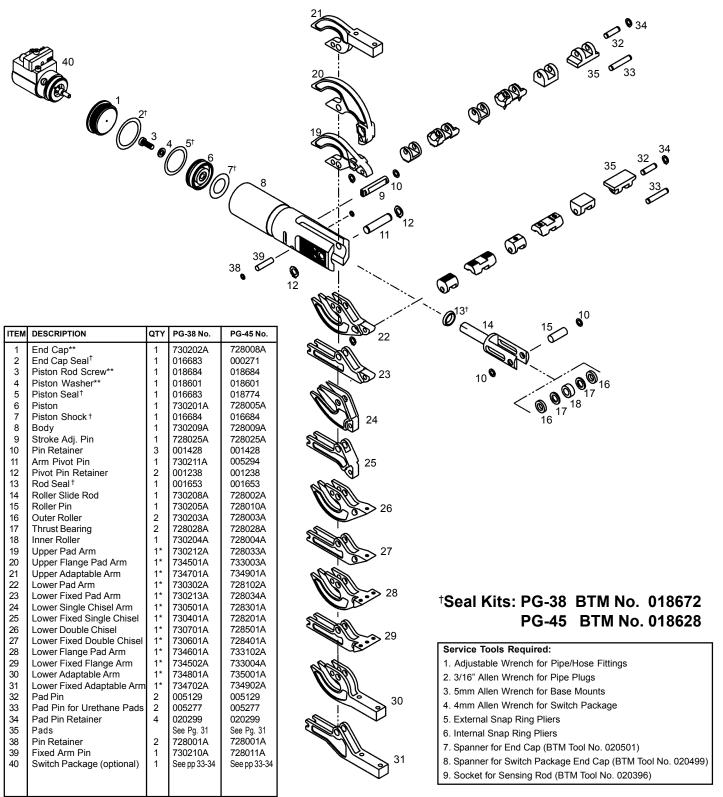
PG-38K ~ Single Opening ~ Adaptable Arms







PG-38 & PG-45 Components



Pg. 30

^{**} Details 1, 3 & 4 are ommited when gripper is fitted with switch package.

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

PG-38 & PG-45 Accessories

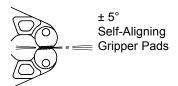


NOTE: URETHANE PADS

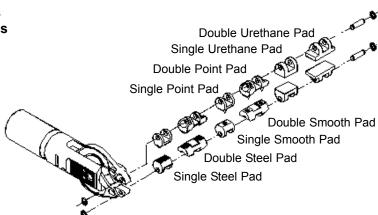
WORK FOR ALL METAL

Gripper Pad

Interchangeable Gripper Pads Fits both PG 38 & PG 45 Models



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

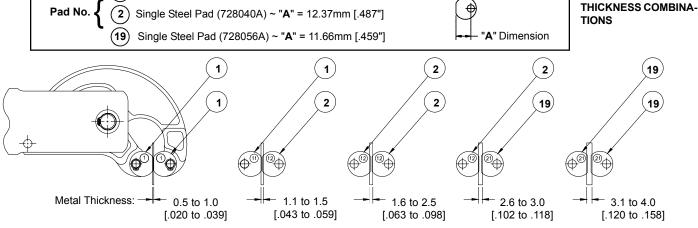


GRIPPER PADS

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

Selection of Gripper Pad Combinations for Metal Thickness

1) Single Steel Pad (728039A) ~ "A" = 13.08mm [.515"]

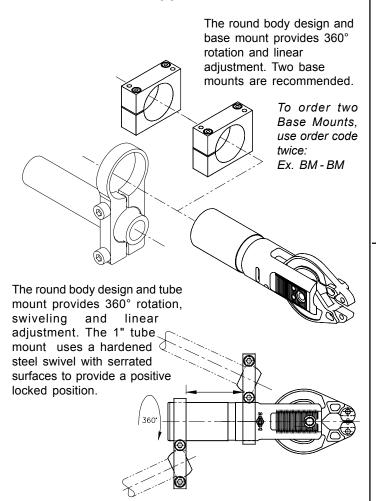


Gripper Pad Color Coding: [P]=Pink [W]=White [Y]=Yellow

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

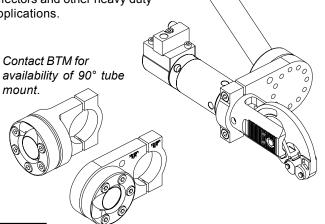
PG-38 & PG-45 Accessories

Gripper Mounts



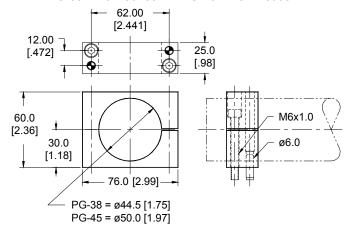
The 1 1/4" tube mount is available in 90° and in-line configuratgions. It is ideal for use with Robot End Arm Effectors and other heavy duty applications.

Pg. 32

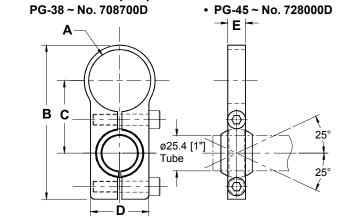


(BM) Base Mount

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

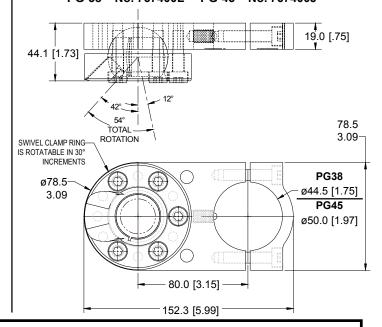


(TM) Tube Mount



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

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

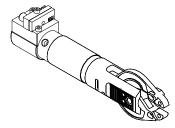


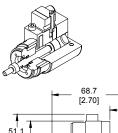
PG-38 & PG-45 Accessories



Position Sensors

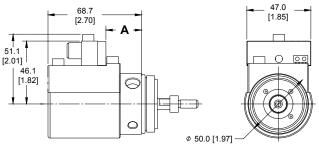
Single Connector Status Controller AC or DC Proximity Switch Senses Open & Closed Positions





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

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



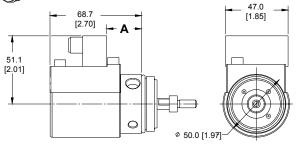
	Α
PG-38 w/DC	
PG-45 w/DC	29.0 [1.14]



RSPT-AC

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

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



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

Components

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

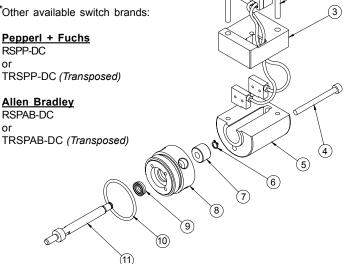
*Other available switch brands:

Pepperl + Fuchs RSPP-DC

TRSPP-DC (Transposed)

Allen Bradley

TRSPAB-DC (Transposed)



DC ~ Status Controller

Two Sensors Supply Voltage:

10-30 VDC

Load Current: ≤150mA Single Connector ~ Conprox®

SO. 2 reads the closed position of the gripper.

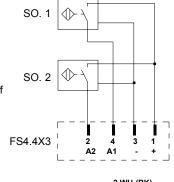
If SO. 2 is required for the open position (transposed), order:

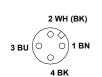
TRSPT-DC

Supplied

w/ Switch

(2)





AC ~ Status Controller

Two Sensors

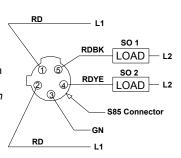
Supply Voltage: 20-250 VAC

Load Current: ≤100mA Single Connector ~ S85

SO. 2 reads the closed position of the gripper.

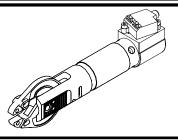
If SO. 2 is required for the open position (transposed), order:

TRSPT-AC



BTM CORPORATION

PG-38 & PG-45 Accessories



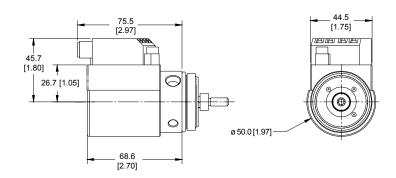
Position Sensors

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

RSPN-DC

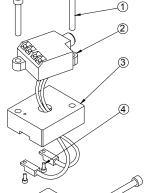
Rear Switch Package - Namco DC EE280-92140

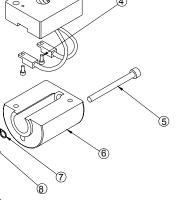
> for PG-38 ~ No. 744400A for PG-45 ~ No. 744300A



Components

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



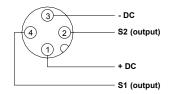


11

DC ~ Cylindicator Two 3-Wire Sensors

Supply Voltage: 10-30 VDC Load Current: 200mA Max. Single Connector ~ Euro

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

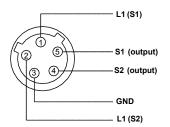


AC ~ Cylindicator

Two Wire

Supply Voltage: 20-150 VAC Load Current: 200mA Max. Single Connector ~ Micro

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



Pg. 34