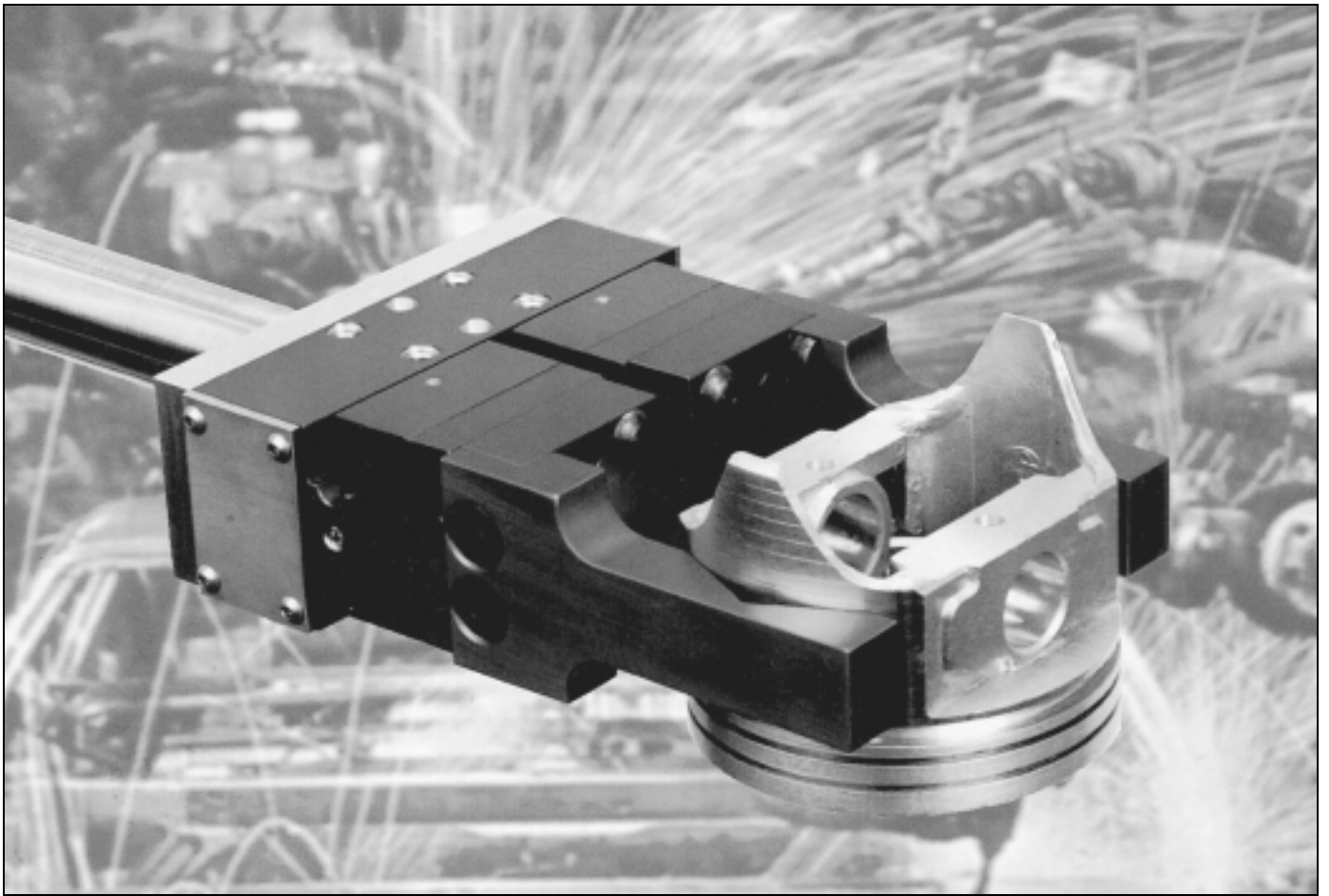


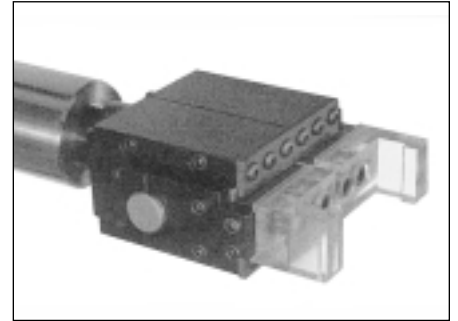
# Precision Parallel Grippers



**RAD**  
ROBOTIC ACCESSORIES DIVISION

## **Box Slide Parallel Grippers** ..... Page 4

- ✓ Long Strokes
- ✓ Rugged Construction
- ✓ Precise Centering
- ✓ Compliant, Sequenced and Synchronous Versions



## **PT/AL Parallel Grippers** ..... Page 12

- ✓ Weld Immune
- ✓ Grinding/Carbide Dust Immune
- ✓ FDA Approved Materials
- ✓ Deionized Waterproof
- ✓ Class One Clean Room Certified
- ✓ Cost Effective



## **PX Parallel Grippers** ..... Page 20

- ✓ Ultra Long Strokes
- ✓ Force and Torque for BIG Jobs
- ✓ Precise Positioning
- ✓ Cost Effective



# Robotic Accessories

## Box Slide Parallel Grippers

### Machine Tool Quality

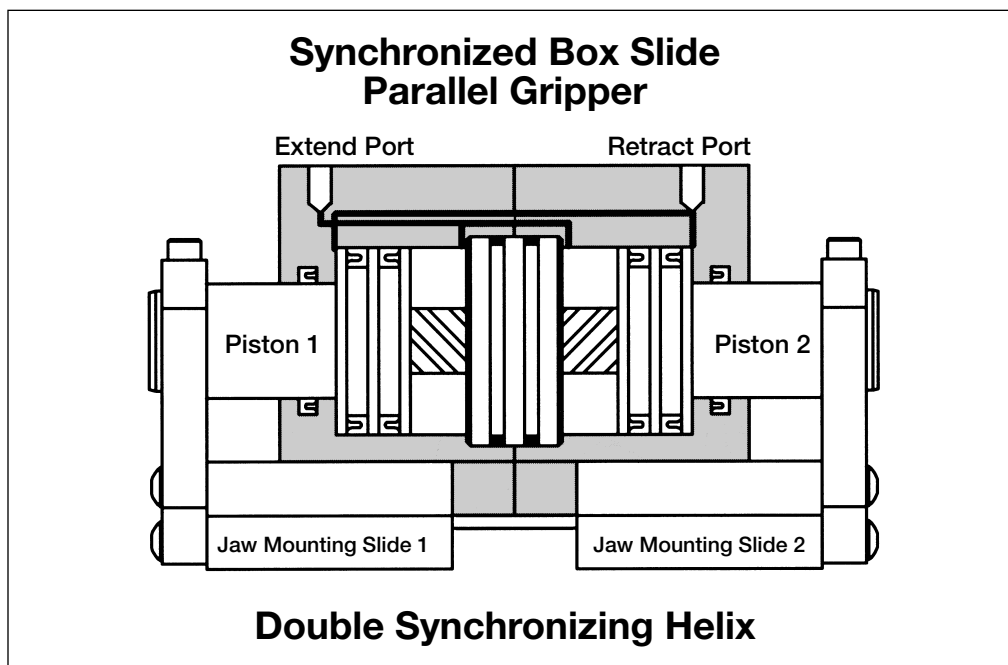
Thousands of Robotic Accessories box slide parallel grippers have demonstrated machine tool quality in die casting, forging, and other torturous environments. Bodies are hardcoated to a Rockwell(c) 70 hardness. All cylinder bores are roller burnished and TFE impregnated to improve seal life and minimize friction.

The pistons are ground and electroless nickel-plated for environmental hardening and to minimize seal friction. Gib plates are hardened and ground and the solid steel movable, jaw-mounting slide is electroless nickel-plated. Robotic Accessories parallel grippers are engineered to go 10,000,000 cycles and beyond!

### Patented Synchronous Technology—Extended Life

Synchronous grippers utilize Robotic Accessories US patent number 4,591,199. The force and synchronizing double helix are independent systems. The double helix works only to center the part to  $\pm 0.001$  inches. All of the gripping force is provided by two pistons

that are driven either pneumatically or hydraulically. The independence of the force and synchronization systems provides precision over the typical 10,000,000+ cycle life of the unit.



## Application Flexibility – Four Styles of Gripper

### **SYNCHRONOUS—Moves parts from a poorly defined to a well defined position.**

The synchronized grippers use the patented ROBOTIC ACCESSORIES double helix technology to implement the classic gripper style. This style centers parts to  $\pm 0.0010$ ". The stroke offered by all of the ROBOTIC ACCESSORIES grippers allows an entire family of parts to be assembled, picked and placed, or held for machining operations without changing the gripper or the tooling.

### **NON-SYNCHRONOUS—Moves parts from a well defined to a poorly defined position.**

In many applications the part is being withdrawn from a well defined position. The part has been captured by a holding device like a chuck, nest or mold. In these cases, the holding device determines the centerline of the part. If a synchronous gripper is used it will also dictate a centerline that will be different by the error in the positioning system. Two different centerlines means that the part will be "racked" or "dinged" when it is removed from the holding device.

The non-synchronous grippers comply to the position of the part, they do not dictate a centerline but "honor" the existing centerline.

This avoids the problems induced by errors in the positioning system.

### **SEQUENCED—References an edge or surface of the part rather than the center.**

When the application requires a family of parts be presented with reference to an edge or surface, a sequenced gripper is required. In the sequenced grippers, jaw 1 closes to a final position (this references the surface or edge), then jaw 2 complies with the other side of the part. In welding, riveting and other "surface sensitive" operations, the sequenced gripper will present the surface to the process regardless of the thickness of the material.

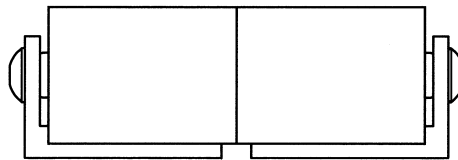
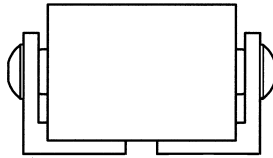
### **QUAD-PORTED—Used when complete system control of each jaw is required.**

In some sequenced or compliant applications, the timing and force exerted by each jaw is critical to the success of the process. In these cases, a quad-ported gripper provides the user with the ultimate in flexibility. Each jaw is independently ported both open and closed. This porting provides for the ultimate in control. Each jaw can be timed, run at a unique pressure, and driven at a unique speed.

## Special Capabilities

ROBOTIC ACCESSORIES offers the broadest line of parallel grippers available today. The long stroke grippers provide

unsurpassed flexibility in handling a wide variety of parts.



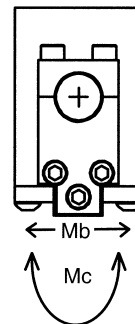
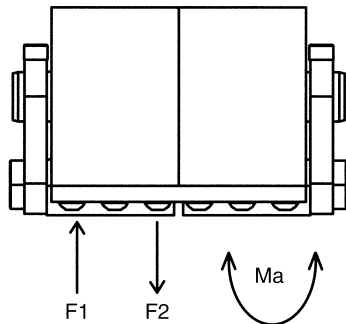
### Ultra Long Stroke

To Handle a Wide Variety of Parts

## Jaw Force & Torque

The forces and moments indicated in the chart below are for loads after the gripper has grasped the part and the jaws have completed their motion. If force and torque is applied to

the gripper while the jaw is moving please see the ROBOTIC ACCESSORIES PX-Series grippers.



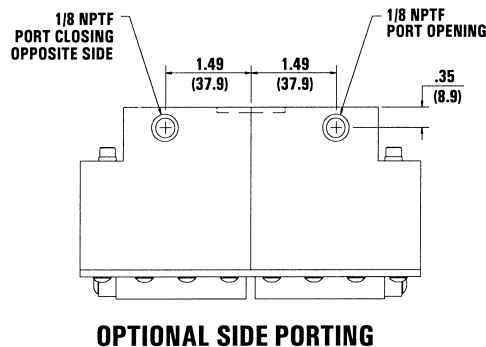
Model	Ma IN•Lbs (kgf•CM)	Mb IN•Lbs (kgf•CM)	Mc IN•Lbs (kgf•CM)	F1 Lbs (kgf)	F2 Lbs (kgf)
P-7700 to P-7900	32 (35)	43 (50)	54 (60)	5 (2.3)	5 (2.3)
P-6950	295 (340)	432 (500)	302 (350)	62 (28.0)	42 (19.2)
P-7000	648 (750)	1080 (1250)	1231 (1400)	246 (111.8)	169 (77.0)
P-7100	1095 (1250)	1825 (2100)	2020 (2300)	750 (340.9)	556 (252.5)
P-7150 & P-7200	1743 (2000)	2905 (3350)	3424 (4000)	1000 (454.5)	928 (421.7)

# MODEL P-6950

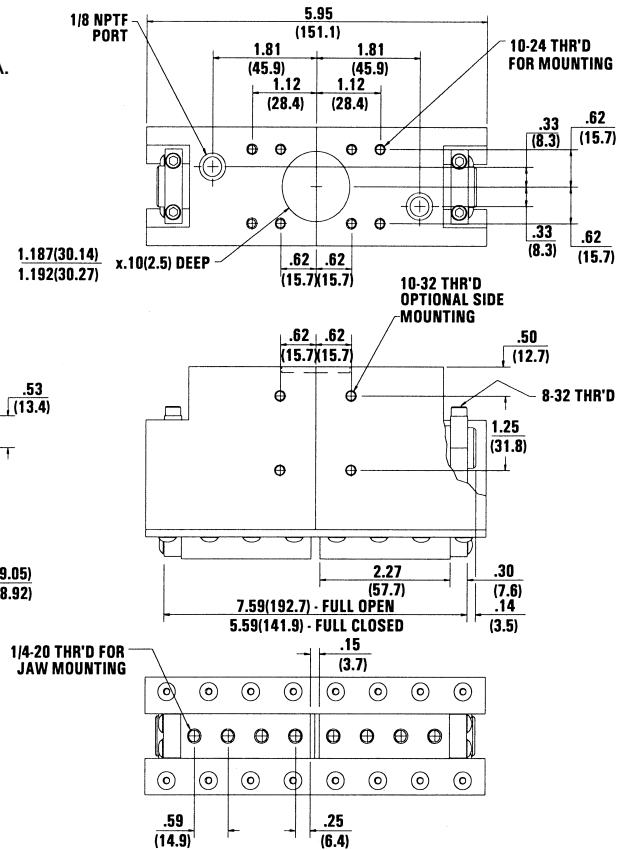
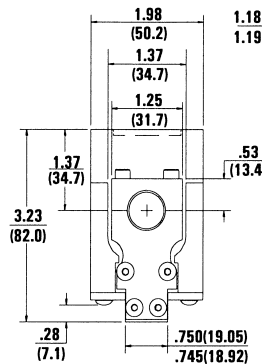
## Long Stroke

### Specifications

Stroke.....2.00 in. (50.8mm)  
 Gripping Force-Closing @ 100 psi (6.8 bar)  
 .....58.2 lbs. (26.4 kgf)  
 Gripping Force-Opening @ 100 psi (6.8 bar)  
 .....97.9 lbs. (44.4 kgf)  
 Weight.....4.33 lbs. (1.96 kg)  
 Operating Displacement...2.184 in<sup>3</sup> (35.78 cm<sup>3</sup>)  
 Maximum Operating Pressure...250 psi (17.0 bar)



\*ALL MTG. HOLES 1-1/2 DIA.  
 MIN. THREAD DEPTH



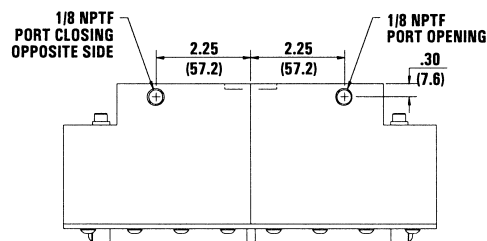
# MODEL P-7000

## Long Stroke

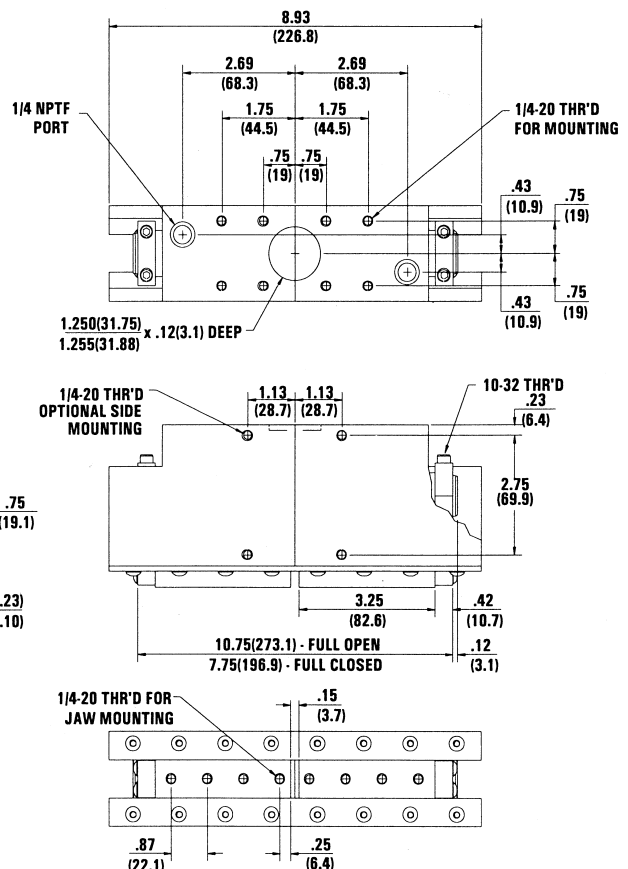
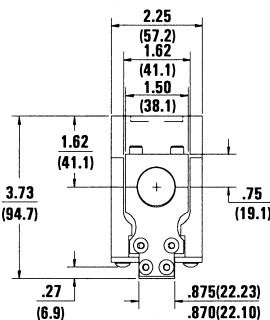
### Specifications

Stroke.....3.00 in. (76.2mm)  
 Gripping Force-Closing @ 100 psi (6.8 bar)  
 .....136.8 lbs. (62.0 kgf)  
 Gripping Force-Opening @ 100 psi (6.8 bar)  
 .....216.5 lbs. (98.2 kgf)  
 Weight.....9.24 lbs. (4.19 kg)  
 Operating Displacement...7.216 in<sup>3</sup> (118.24 cm<sup>3</sup>)  
 Maximum Operating Pressure...250 psi (17.0 bar)

### OPTIONAL SIDE PORTING



\*ALL MTG. HOLES 1-1/2 DIA.  
 MIN. THREAD DEPTH



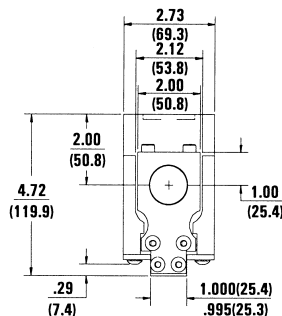
# MODEL P-7100

## Long Stroke

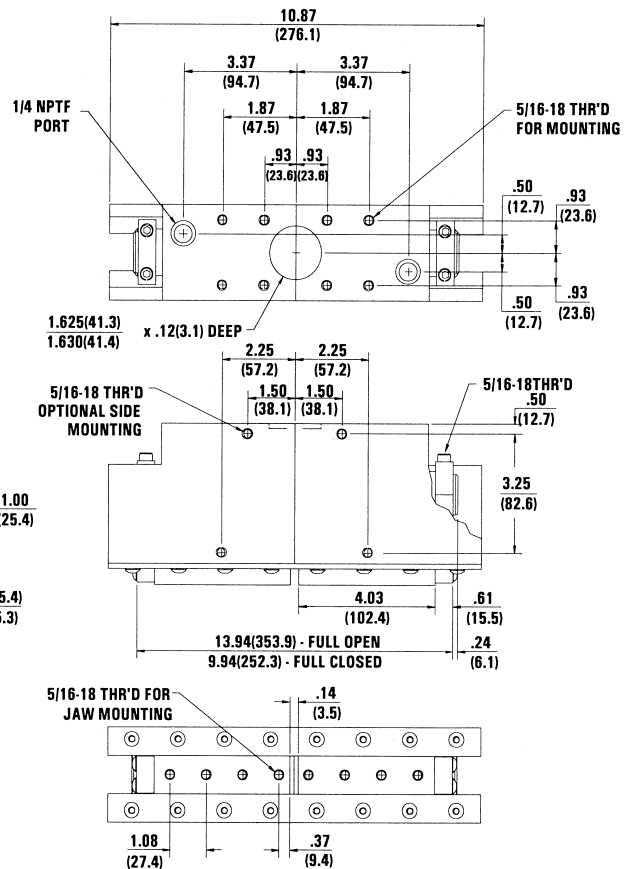
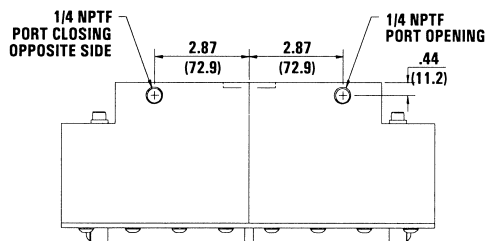
### Specifications

Stroke..... 4.00 in. (101.6mm)  
 Gripping Force-Closing @ 100 psi (6.8 bar)  
 ..... 223.1 lbs. (101.2 kgf)  
 Gripping Force-Opening @ 100 psi (6.8 bar)  
 ..... 311.7 lbs. (141.4 kgf)  
 Weight ..... 16.38 lbs. (7.43 kg)  
 Operating Displacement .. 13.894 in<sup>3</sup> (227.68 cm<sup>3</sup>)  
 Maximum Operating Pressure.. 250 psi (17.0 bar)

\*ALL MTG. HOLES 1-1/2 DIA.  
 MIN. THREAD DEPTH



### OPTIONAL SIDE PORTING



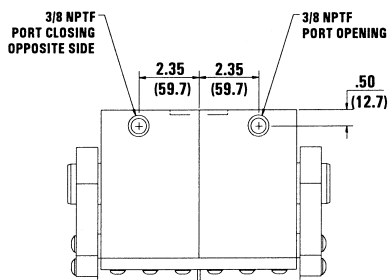
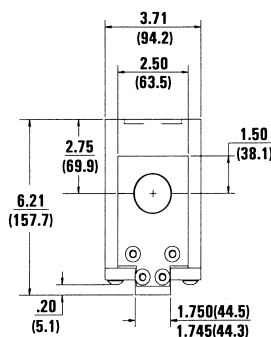
# MODEL P-7150

## Standard Stroke

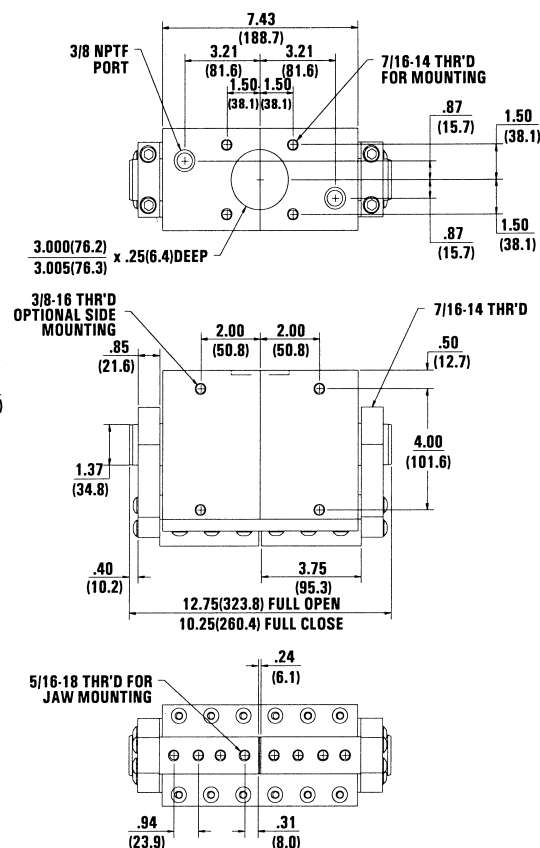
### Specifications

Stroke..... 2.50 in. (83.5mm)  
 Gripping Force-Closing @ 100 psi (6.8 bar)  
 ..... 503.5 lbs. (228.4 kgf)  
 Gripping Force-Opening @ 100 psi (6.8 bar)  
 ..... 636.2 lbs. (288.7 kgf)  
 Weight ..... 28.5 lbs. (12.927 kg)  
 Operating Displacement .. 17.671 in<sup>3</sup> (289.6 cm<sup>3</sup>)  
 Maximum Operating Pressure.. 250 psi (17.0 bar)

\*ALL MTG. HOLES 1-1/2 DIA.  
 MIN. THREAD DEPTH



### OPTIONAL SIDE PORTING



# MODEL P-7200

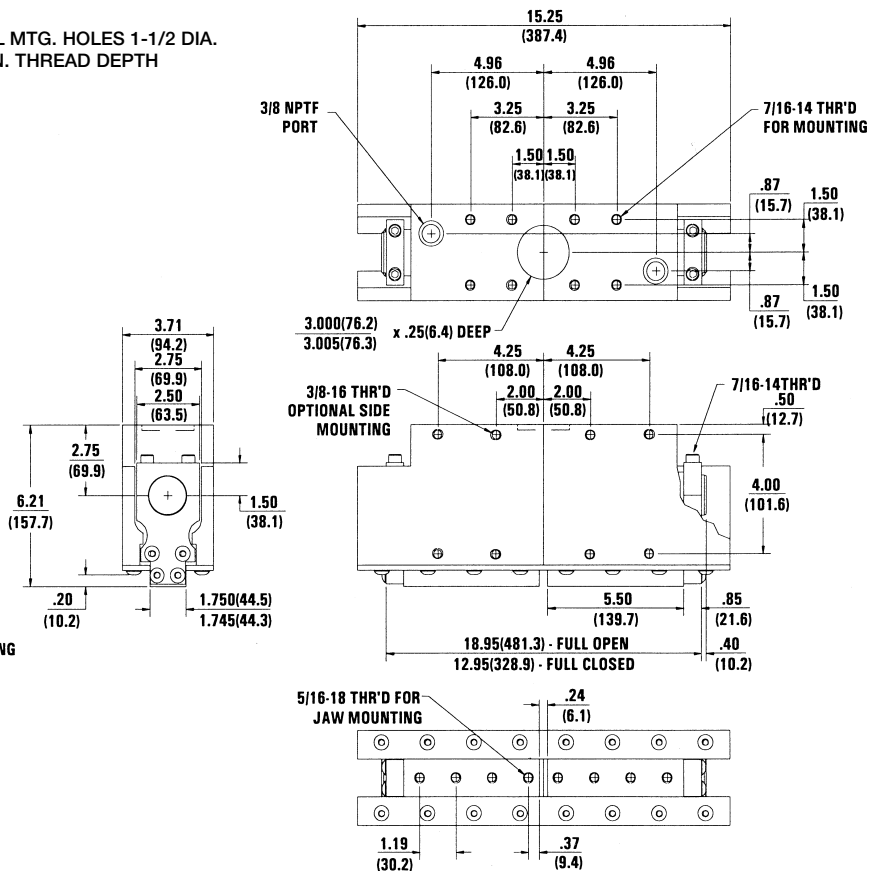
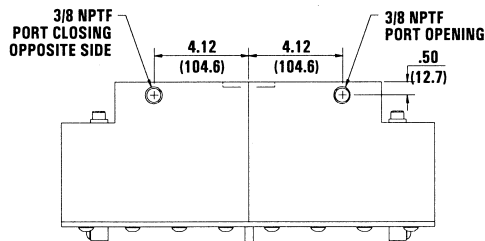
## Long Stroke

### Specifications

Stroke . . . . . 6.00 in. (152.4mm)  
 Gripping Force—Closing @ 100 psi (6.8 bar)  
 . . . . . 503.5 lbs. (228.4 kgf)  
 Gripping Force—Opening @ 100 psi (6.8 bar)  
 . . . . . 636.2 lbs. (288.7 kgf)  
 Weight . . . . . 39.88 lbs. (18.09 kg)  
 Operating Displacement . . . 42.411 in<sup>3</sup> (695.0 cm<sup>3</sup>)  
 Maximum Operating Pressure . . 250 psi (17.0 bar)

\*ALL MTG. HOLES 1-1/2 DIA.  
 MIN. THREAD DEPTH

### OPTIONAL SIDE PORTING

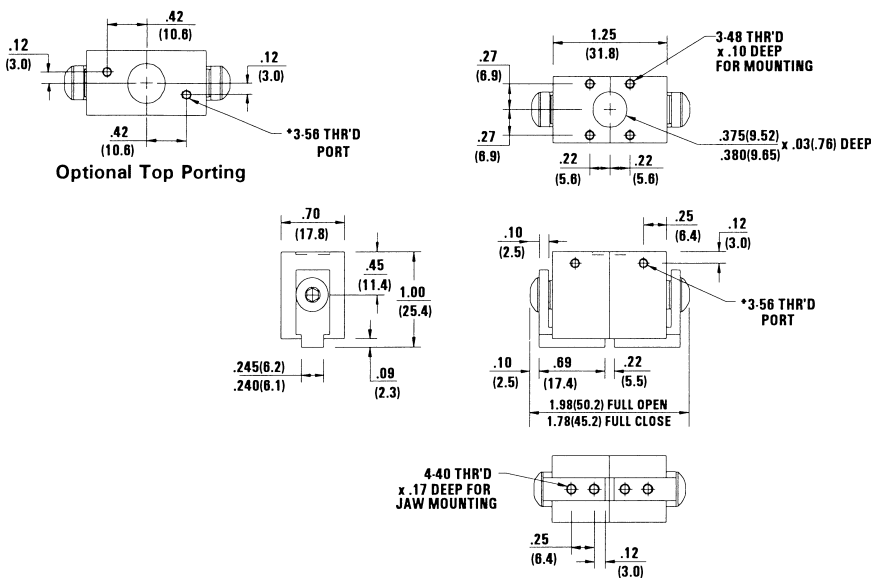


# MODEL P-7700

## Standard Stroke—Miniature Grippers

### Specifications

Stroke . . . . . 0.20 in. (5.08mm)  
 Gripping Force—Closing @ 100 psi (6.8 bar)  
 . . . . . 6.9 lbs. (3.1 kgf)  
 Gripping Force—Opening @ 100 psi (6.8 bar)  
 . . . . . 13.5 lbs. (6.1 kgf)  
 Weight . . . . . 1.63 ozs. (45.36 g)  
 Operating Displacement . . . . 0.030 in<sup>3</sup> (.491 cm<sup>3</sup>)  
 Maximum Operating Pressure . . 150 psi (10.2 bar)  
 —Air Only



\*Barbed Fitting for 1/16 ID Tube Supplied by Robotic Accessories

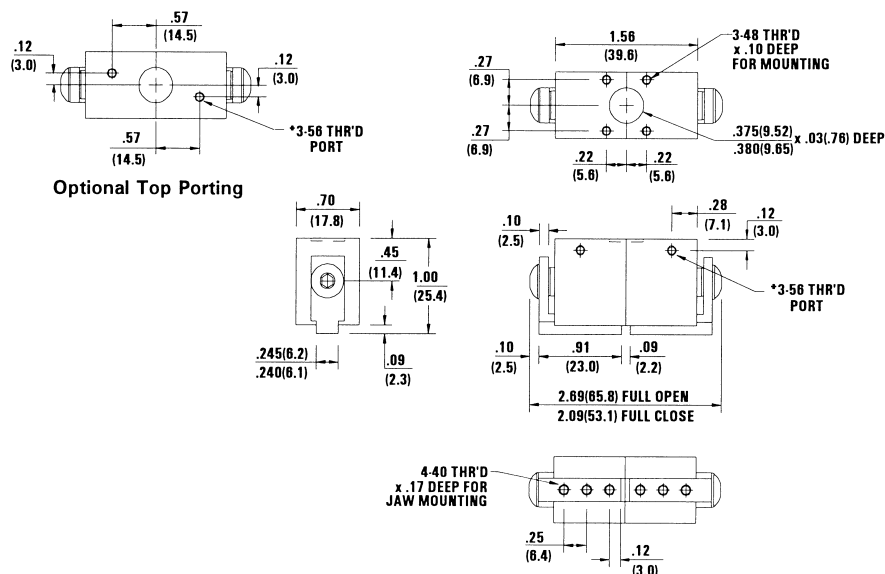


# MODEL P-7800

## Long Stroke—Miniature Grippers

### Specifications

Stroke . . . . . 0.50 in. (12.7mm)  
 Gripping Force—Closing @ 100 psi (6.8 bar)  
 . . . . . 6.9 lbs. (3.1 kgf)  
 Gripping Force—Opening @ 100 psi (6.8 bar)  
 . . . . . 13.5 lbs. (6.1 kgf)  
 Weight . . . . . 2.02 ozs. (57.27 g)  
 Operating Displacement . . . . . 0.075 in<sup>3</sup> (1.23 cm<sup>3</sup>)  
 Maximum Operating Pressure . . . 150 psi (10.2 bar)  
 —Air Only



\*Barbed Fitting for 1/16 ID Tube Supplied by Robotic Accessories

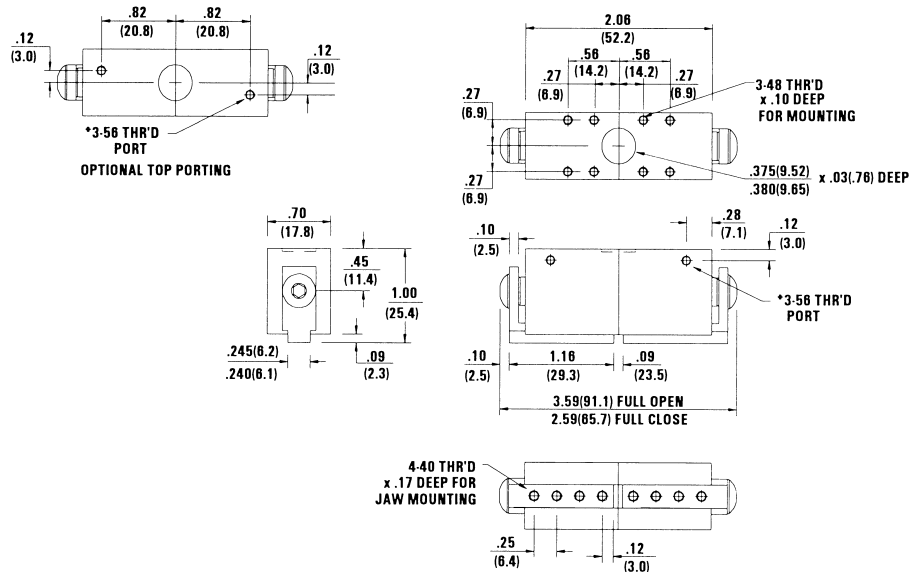
# MODEL P-7900

## Ultra Long Stroke—Miniature Grippers

### Specifications

Stroke<sup>†</sup> . . . . . 1.00 in. (25.4mm)  
 Gripping Force—Closing @ 100 psi (6.8 bar)  
 . . . . . 6.9 lbs. (3.1 kgf)  
 Gripping Force—Opening @ 100 psi (6.8 bar)  
 . . . . . 13.5 lbs. (6.1 kgf)  
 Weight . . . . . 2.53 ozs. (71.72 g)  
 Operating Displacement . . . . . 0.150 in<sup>3</sup> (2.46 cm<sup>3</sup>)  
 Maximum Operating Pressure . . . 150 psi (10.2 bar)  
 —Air Only

<sup>†</sup>Special 2 in. stroke model available.

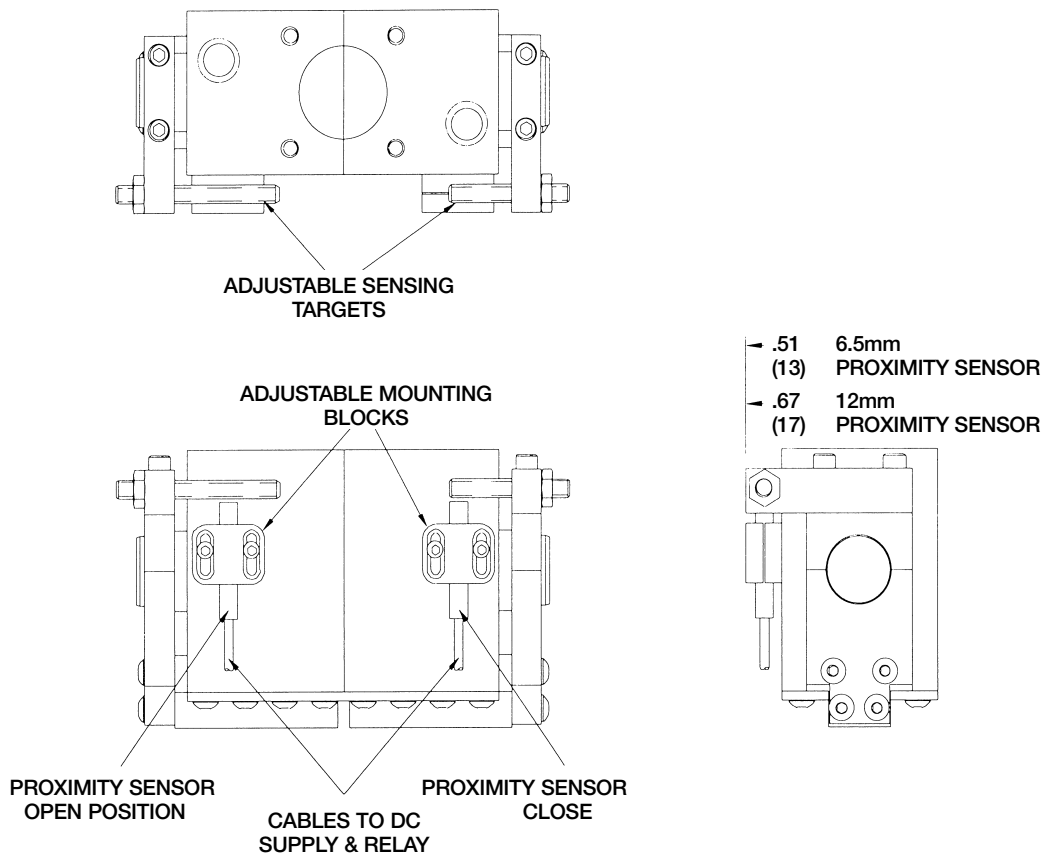


\*Barbed Fitting for 1/16 ID Tube Supplied by Robotic Accessories

# Robotic Accessories

## Proximity Sensors

Not Available on Miniature Box Slide Grippers P-7700, P-7800 & P-7900



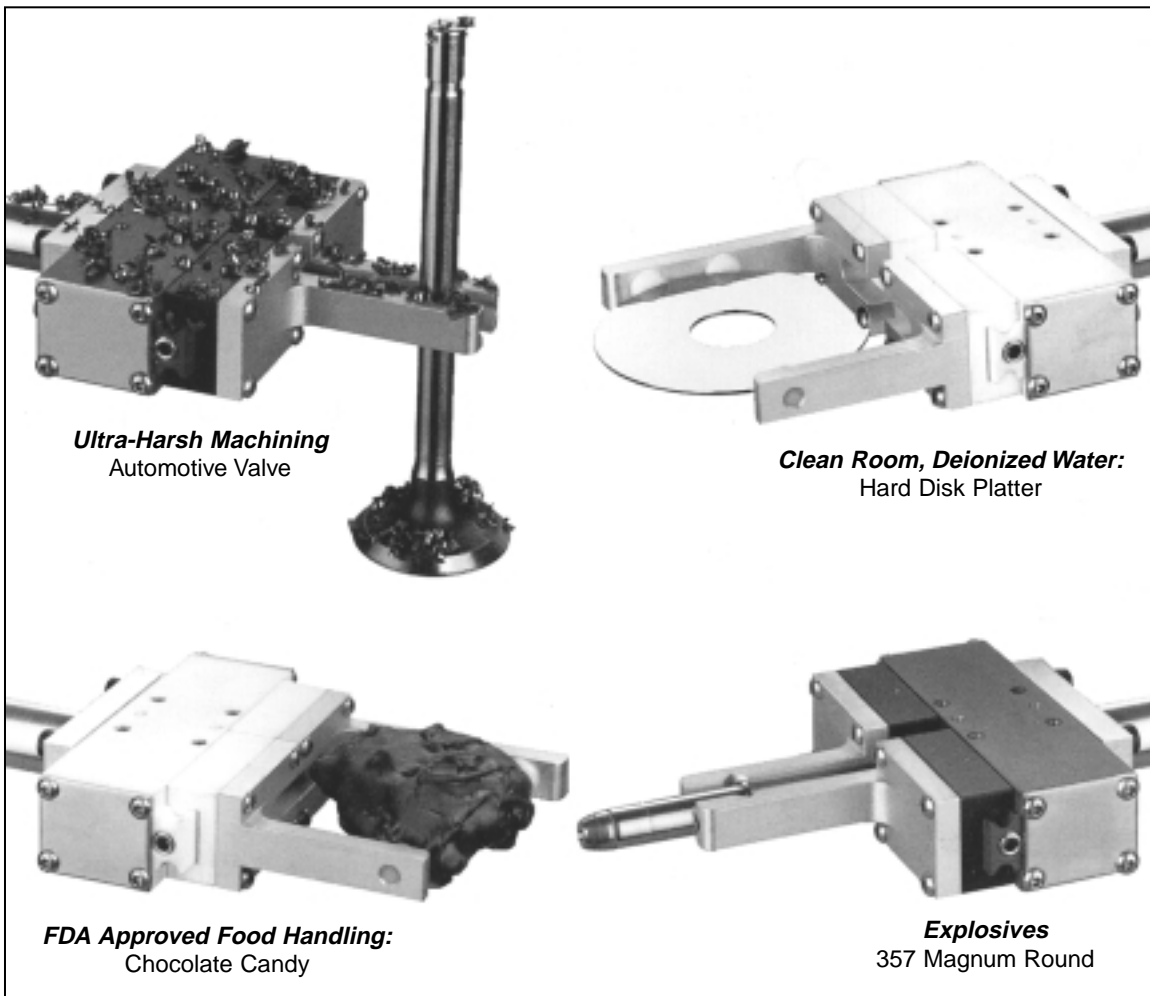
### Specifications & Dimensions

Model	Voltage Range	Output	Operating Temperatures	Shielded	Overload Protected
6.5mm-DC	10-60 VDC	Sourcing (PNP) Sinking (NPN)	-14°F - +158°F	Yes	Yes
12mm-AC	90-130 VAC	N. O. N. C.	-14°F - +158°F	Yes	No

# Robotic Accessories

## PT/AL Grippers

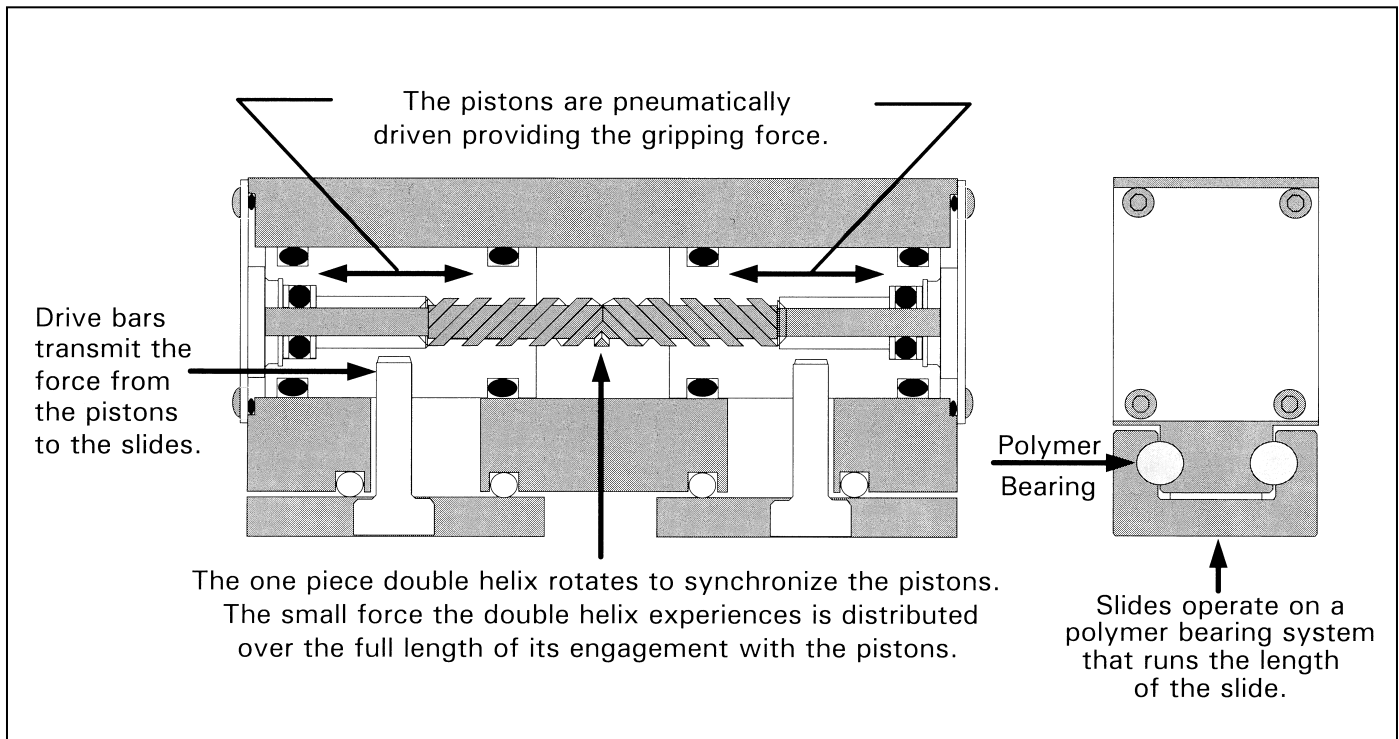
- ✓ Weld Immune
- ✓ Grinding/Carbide Dust Immune
- ✓ FDA Approved Materials
- ✓ Deionized Waterproof
- ✓ Class One Clean Room Certified
- ✓ Cost Effective



PT/AL grippers are universally applicable “out-of-the-box”. The use of third-generation ROBOTIC ACCESSORIES technology and the selection of super tough, corrosive resistant materials allows the PT/AL to efficiently serve day-to-day as well as tough, nearly impossible

applications. Examples of the range of PT/AL application environments include welding, grinding, machining, clean room, epitaxial wafer fabrication, hard disk fabrication, D.I. water and food processing.

## PT/AL Features



### Patented Synchronous Technology—Extended Life

The synchronous PT/AL gripper utilizes US patent numbers 4,591,199 and 5,657,973 with others pending. The force and synchronizing double helix are independent systems. The double helix works only to center the part to  $\pm 0.025$  mm ( $\pm 0.0010$ "). All of the gripping force is provided by two pistons that are driven

pneumatically. The independence of the force and synchronization systems provides precision over the typical 10,000,000+ cycle life of the unit. In non-abusive applications the technology may deliver 20,000,000 or more cycles.

### Double Sealed for Superior Integrity

The PT/AL mechanism is double sealed to assure that the mechanism is isolated from the environment. In clean rooms and food processing this ensures environmental

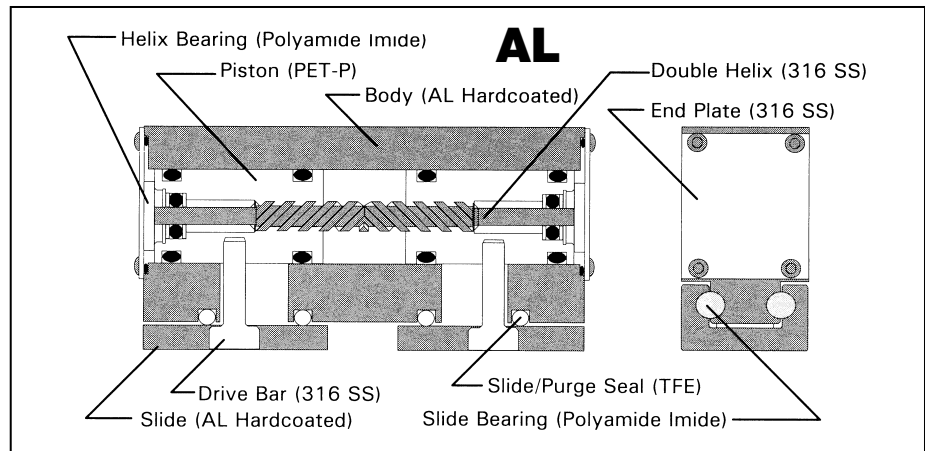
integrity. In harsh environments the double seals protect the gripper from contamination that could lead to failure.

### The Ultimate Materials—Force to Weight >200

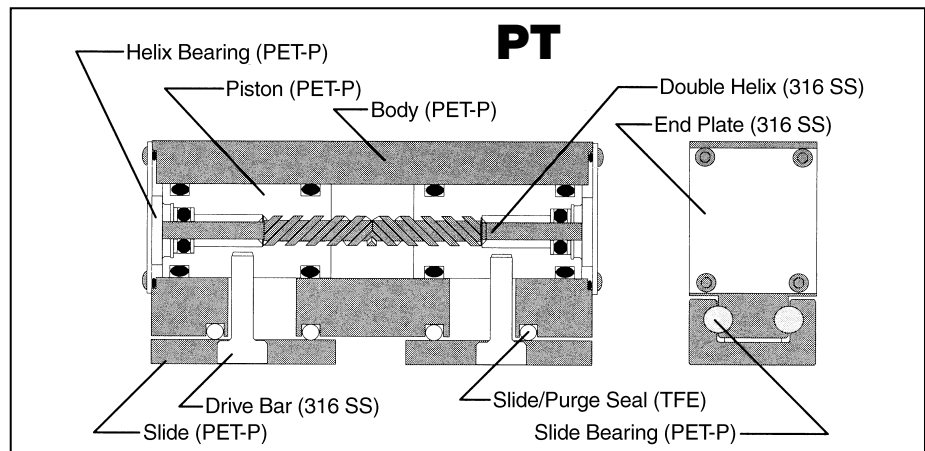
All materials of the PT/AL gripper are designed to eliminate maintenance and assure that the gripper functions in harsh environments. There are two material versions of the PT/AL gripper—aluminum and PET.

Each was developed to extend the out-of-the-box applicability of the PT/AL technology. The design and material selection allow the PT/AL to provide *Force/Weight ratios in excess of 200*.

The Aluminum version of the PT/AL is intended for use in very dirty and explosive environments as well as class ten clean rooms. All of the materials are chosen to be corrosive resistant as well as tough.



All materials used in the “PET” version of the PT/AL comply with FDA requirements for food handling. The PET unit is also class one clean room certified and Deionized Water tolerant for use in hard disk and epitaxial fabrication.



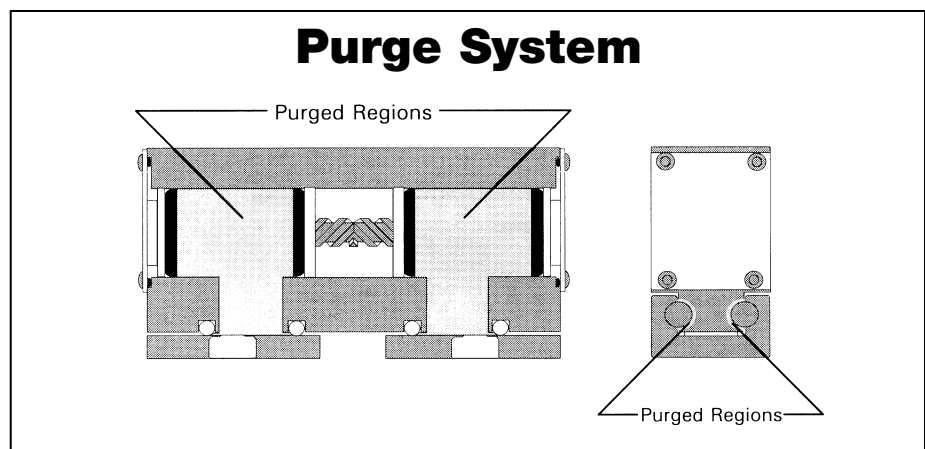
## Clean Room & Dirty Environment Purge System

Another unique feature of the PT/AL family is a dual usage purge system (patent pending) that is part of every gripper. The purge system

facilitates use in clean rooms (***CLASS ONE clean rooms, an independent Lab report is available***) and very dirty environments.

In ***clean rooms*** the purge system is evacuated. Any contaminants from the pneumatic system that pass the seals of the gripper are eliminated from the environment.

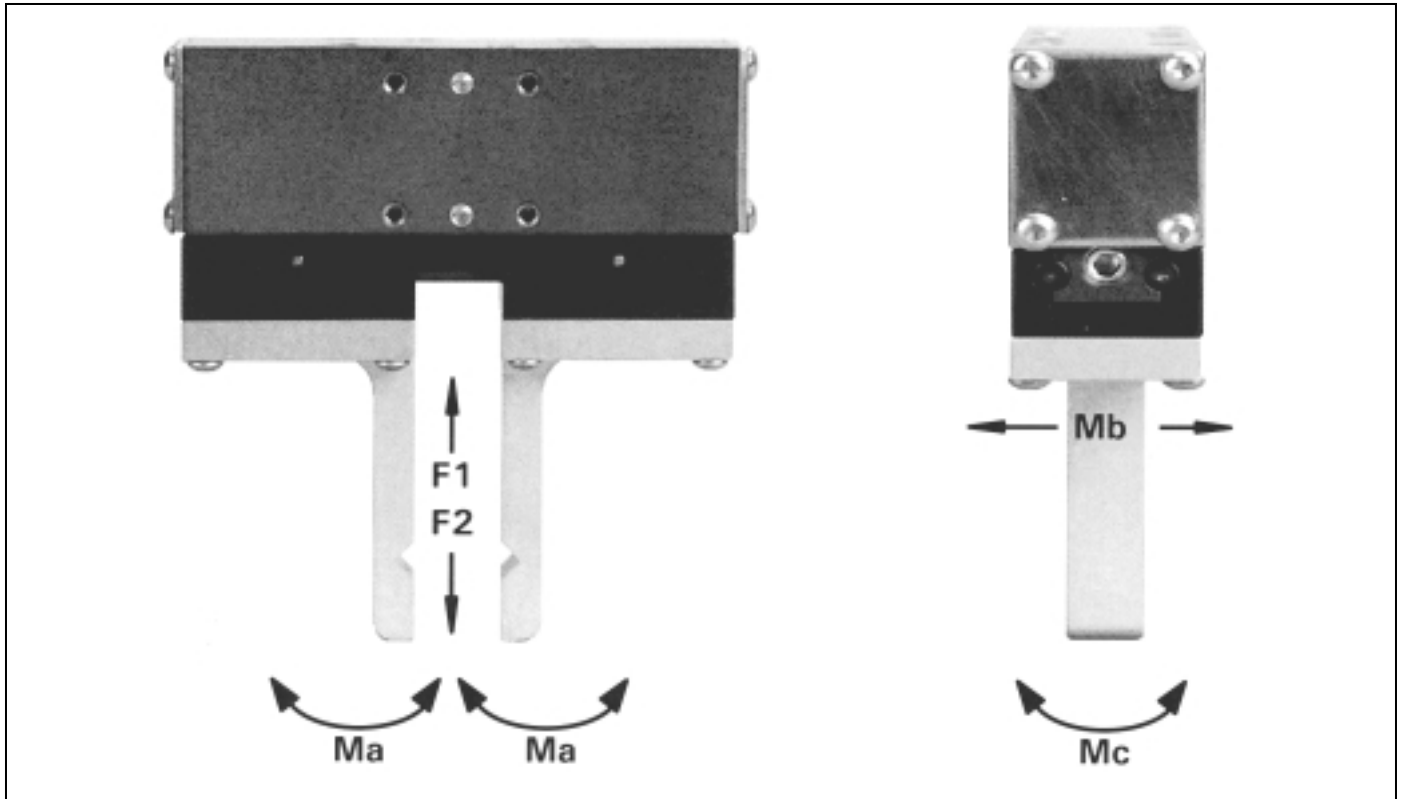
In very ***dirty environments*** the purge system is pressurized. Any debris that attempts to make its way under the slide bearings is cleared away by the pressure at the purge port.



## Torque and Force Unmatched

The PT/AL family uses a linear bearing system much like those used in machine tools. However, to minimize weight and size, advanced polymers are utilized rather than ball bearing rails. The torque and force capabilities

of the PT/AL family are maintained over the life of the gripper due to the length of the bearing surface over which the loads are distributed.



Model	Ma IN•Lbs (Nm)	Mb IN•Lbs (Nm)	Mc IN•Lbs (Nm)	F1 Lbs (kg)	F2 Lbs (kg)
AL-2000/2100	212 (24)	177 (20)	141 (16)	55 (25)	44 (20)
PT-2000/2100	88 (10)	88 (10)	88 (10)	44 (20)	33 (15)
AL-2200	840 (100)	700 (80)	530 (60)	123 (56)	150 (68)

## Lifetime Lubrication

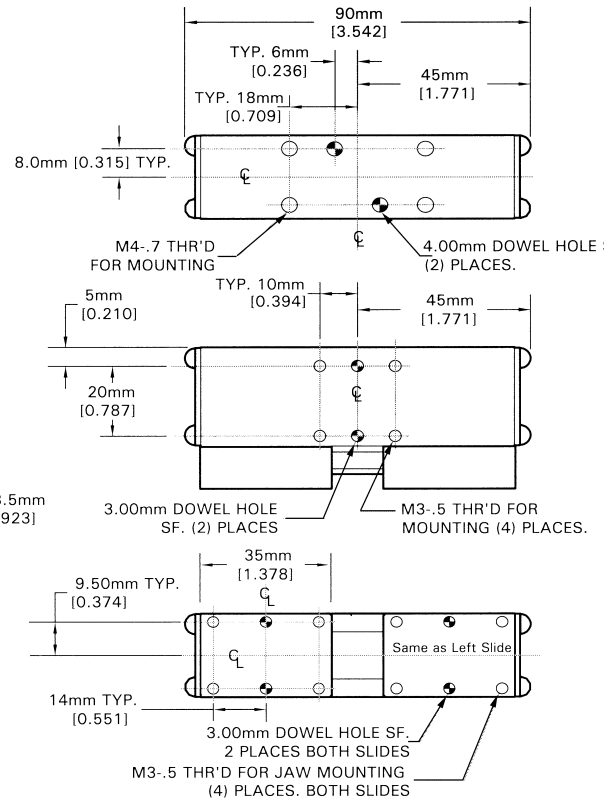
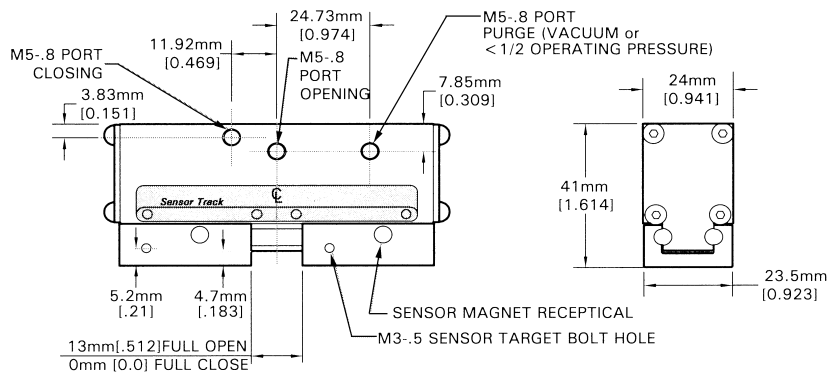
The universal application of the PT/AL grippers is made possible with the use of a *lifetime lubricant*. This allows the use of “dry air” and compliance with new and proposed

OSHA regulations that forbid the use of lubricants in air lines. With an FDA rating of H1, this lifetime lubricant is also people and food “friendly”.

# MODEL AL or PT-2000

## Specifications

Gripping Force–Open and Close, Each Jaw  
 @ 100 psi (690 kPa) ..... 29 lbs. (130N)  
 Stroke ..... 0.512 in. (13.0mm)  
 Weight  
 PET ..... 0.28 lbs. (127g)  
 AL ..... 0.42 lbs. (188g)  
 Operating Displacement ..... 0.373 in<sup>3</sup> (6.1 cm<sup>3</sup>)  
 Maximum Operating Pressure ..... 120 psi (830 kPa)



NOTE: All jaw and gripper mounting holes are a minimum of one diameter deep on AL units, one and one half diameters deep on PT units. AL jaw and mounting holes have SS coil inserts. PT maximum torques: .8 Nm [7 in-lb] for 3mm fasteners .9 Nm [8 in-lb] for 4mm fasteners

# MODEL AL or PT-2100

## Specifications

Gripping Force–Open and Close, Each Jaw

@ 100 psi (690 kPa) . . . . . 29 lbs. (130N)

Stroke . . . . . 1.02 in. (26.0mm)

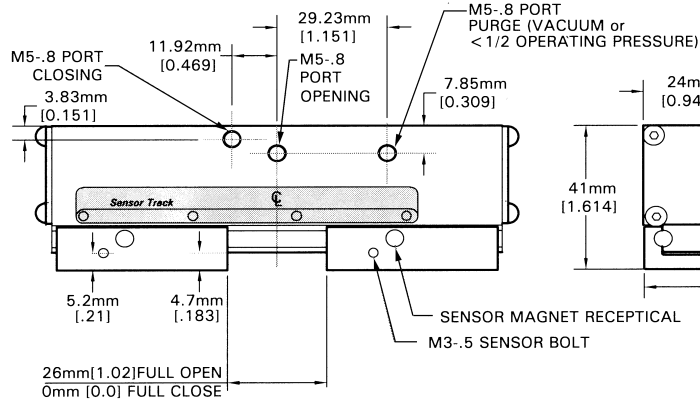
Weight

PET . . . . . 0.38 lbs. (170g)

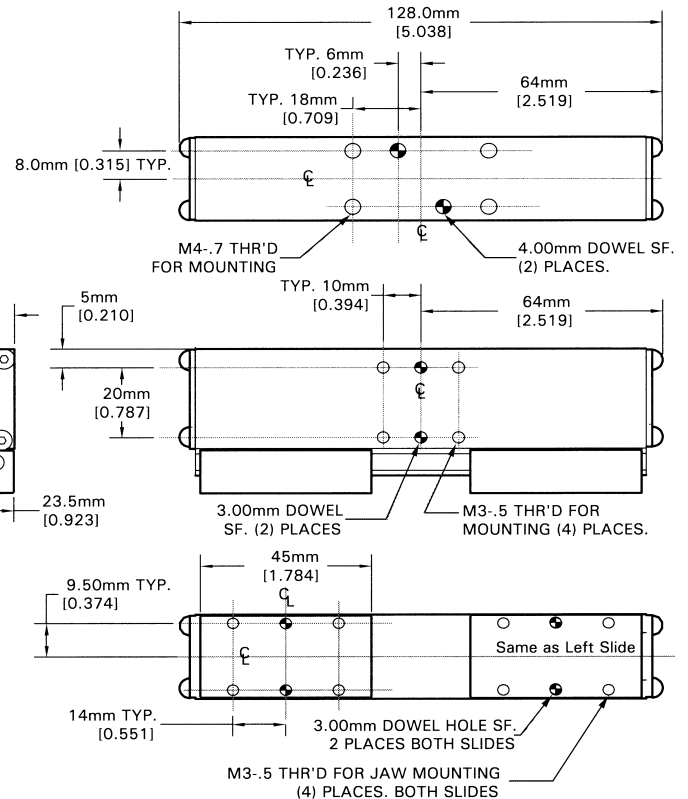
AL . . . . . 0.56 lbs. (252g)

Operating Displacement. . . . . 0.746 in<sup>3</sup> (12.2 cm<sup>3</sup>)

Maximum Operating Pressure. . . . . 120 psi (830 kPa)



**NOTE:** All jaw and gripper mounting holes are a minimum of one diameter deep on AL units, one and one half diameters deep on PT units. AL jaw and mounting holes have SS coil inserts. PT maximum torques: .8 Nm [7 in-lb] for 3mm fasteners .9 Nm [8 in-lb] for 4mm fasteners

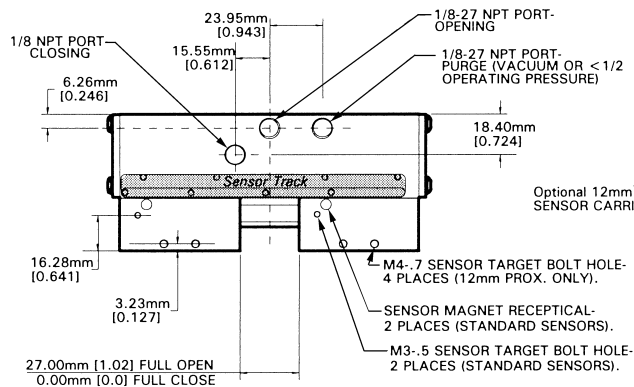




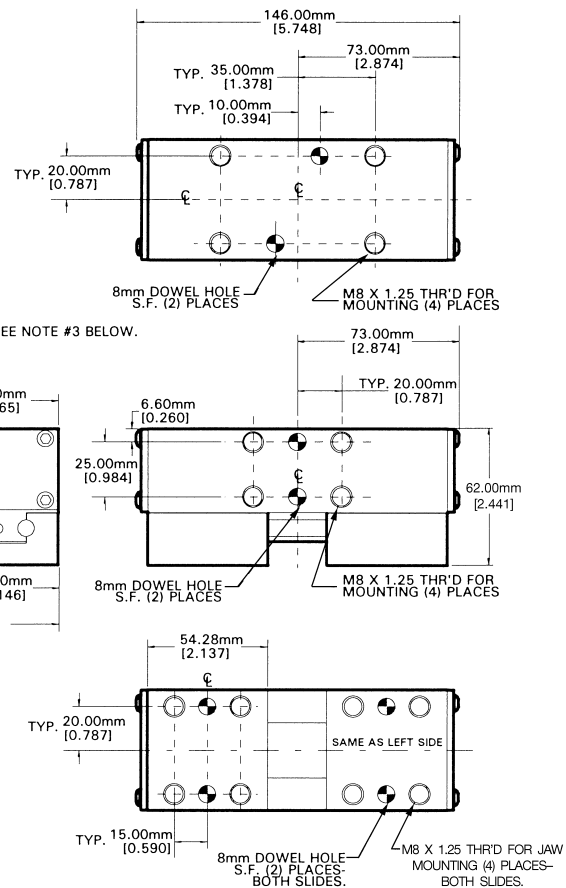
# MODEL AL-2200

## Specifications

Gripping Force–Open and Close, Each Jaw  
 @ 100 psi (690 kPa) ..... 100 lbs. (450N)  
 Stroke ..... 1.02 in. (26.0mm)  
 Weight ..... 2.39 lbs. (1.09kg)  
 Operating Displacement ..... 2.23 in<sup>3</sup> (36 cm<sup>3</sup>)  
 Maximum Operating Pressure ..... 120 psi (830 kPa)



- NOTE:
1. ALL JAW AND GRIPPER MOUNTING HOLES ARE A MINIMUM OF ONE DIAMETER DEEP.
  2. ALL MAGNUM-450 JAW AND MOUNTING HOLES HAVE STAINLESS STEEL COIL INSERTS.
  3. WHEN USING CERTAIN 12mm PROX. SENSORS, SENSOR MAY EXTEND PAST THE MOUNTING SURFACE.



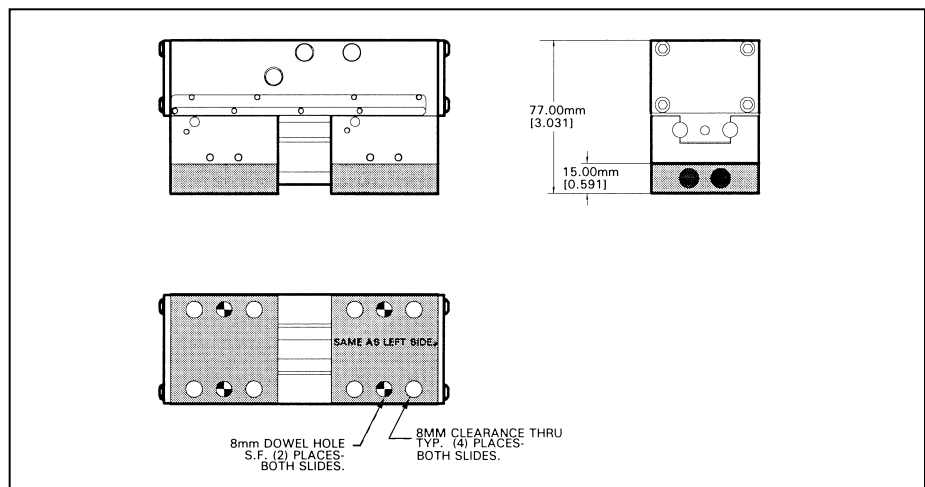
## AL-2200 Active Fail Safe Accessory

The AFS accessory will assure that parts are not dropped should the pneumatic pressure fail. Either an encompassing jaw system or

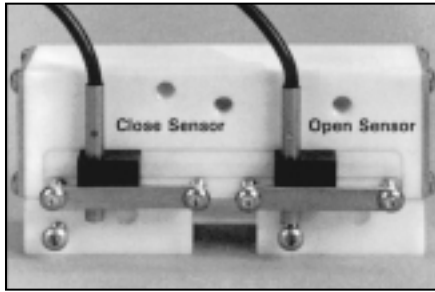
jaws with compliance must be used with this accessory. Some movement of the jaws will occur as pressure fails.

## Specifications

Closing Force @ Full Open ..... 25 lbs. (111N)  
 Closing Force @ Full Close ..... 15 lbs. (67N)  
 Weight ..... 2.97 lbs. (1.35kg)  
 Minimum Operating Pressure .... 60 psi (415kPa)

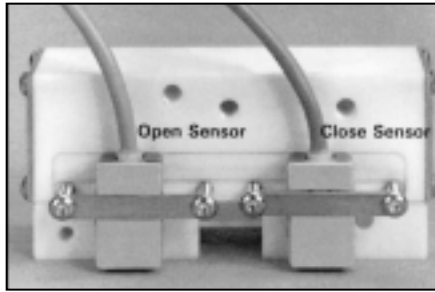
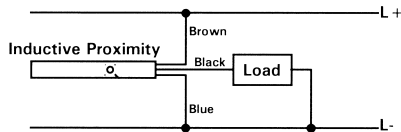


# PT/AL Sensor Systems



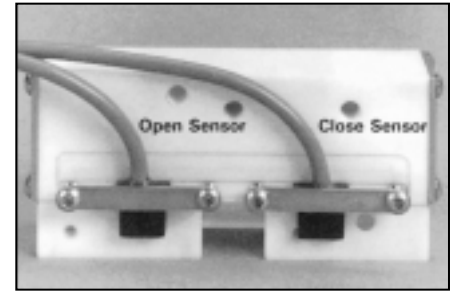
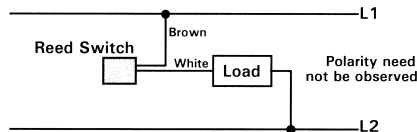
## Inductive Proximity Sensor Kit, 4mm DC-Sourcing, PNP, 2M Cable

10-30 VDC, 100 mA Max Current & Inrush  
Status Indicator: LED, Supply Current < 9.5 mA



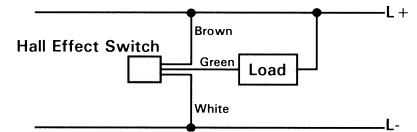
## Reed Switch Sensor Kit SPST Normally Open, 9' Cable

10-120 VDC/VAC, 0.5 Amp Max Current, MOV protection  
Status Indicator: LED, Switching Power 10 Watts Max



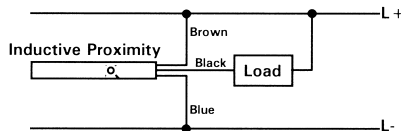
## Hall Effect Sensor Kit DC-Sinking, NPN, 9' Cable

6-24 VDC, 20 mA Max Current  
Supply Current < 14 mA



## Inductive Proximity Sensor Kit, 4mm DC-Sinking, NPN, 2M Cable

10-30 VDC, 100 mA Max Current & Inrush  
Status Indicator: LED, Supply Current < 9.5 mA



## Robotic Accessories

# PX Grippers

- ✓ Ultra Long Strokes
- ✓ Force and Torque for **BIG** Jobs
- ✓ Precise Positioning
- ✓ Cost Effective



The PX concept was developed for applications that impart high acceleration to heavy objects or require extremely long, precisely positioned jaws. These applications put extreme stress on the gripper. PX grippers use a ceramic bearing system to isolate the precision jaw positioning system from jaw torque and force. The ceramic bearing rail

allows the gripper to be small and light weight while delivering gripping force in excess of 2500N (560 pounds) and to tolerate jaw torque of 600NM (405 ft-lb).

*PX grippers truly deliver:*

**TWICE THE FORCE...HALF THE SIZE**

## Patented Synchronous Technology–Extended Life

The synchronous PX utilizes US patent number 4,591,199 & 5,657,973. The force and synchronizing double helix are independent systems. The double helix works only to center the part to .025mm ( $\pm 0.001$  inches).

All of the gripping force is provided by two pistons that are driven pneumatically. The independence of the force and synchronization systems provides precision over the typical 10,000,000+ cycle life of the unit.



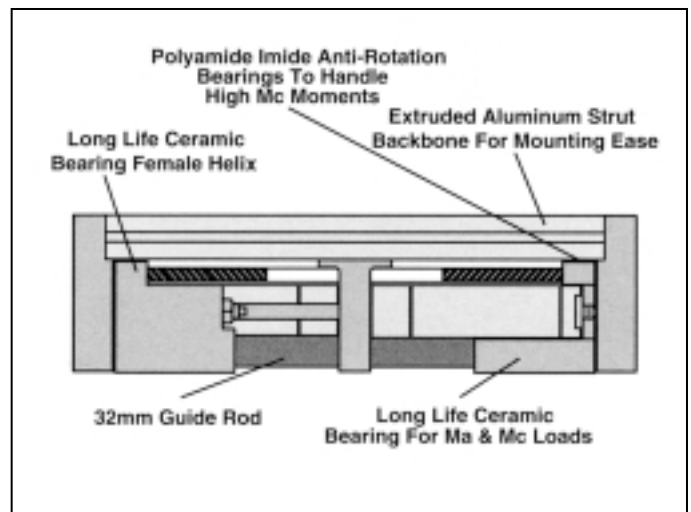
## Rugged Construction–Low Cost of Ownership

PX takes advantage of dynamic developments in both material science and automation technology to offer new horizons of toughness and cost efficiency.

Unparalleled rigidity is achieved by combining a 32mm ground rod and ROBOTIC ACCESSORIES' proprietary ceramic bearing technology. Anti-rotation of the jaw mounting system is achieved with polyamide imide bearings running in guides that are precision machined in the extruded backbone of the system. All of these moving members are lubricated for the life of the gripper.

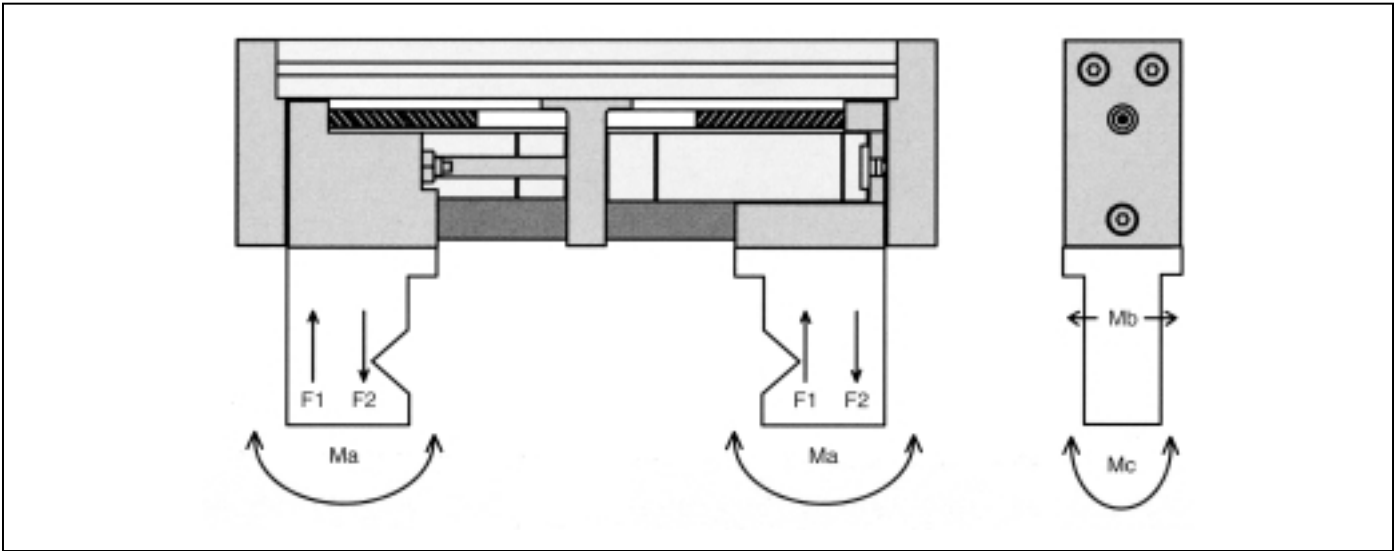
To achieve environmental stability, stainless steel, aluminum, and polymer are the only materials used in the construction of the gripper.

The application flexibility of the gripper is extended by the use of an extruded aluminum



backbone that provides multiple options for mounting the gripper and mounting sensors to the gripper. The cost of ownership of the PX is minimized by the use of off-the-shelf stainless steel cylinders. These cylinders include magnetic sensing rings for enhanced flexibility in sensing.

## PX Jaw Torque and Force



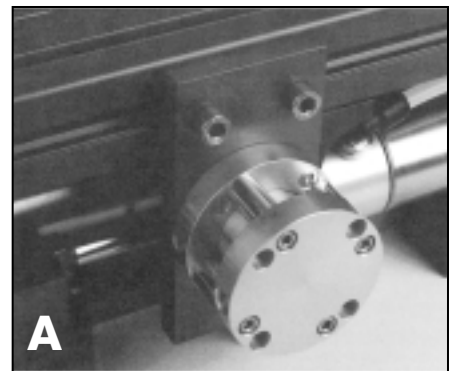
Model	Ma : Ft•Lbs (Nm)	Mb Ft•Lbs (Nm)	Mc Ft•Lbs (Nm)	F1 Lbs (kg)	F2 Lbs (kg)
PX-450	165 (225)	165 (225)	117 (160)	492 (224)	305 (136)
PX-1250	405 (550)	440 (600)	405 (550)	1500 (670)	450 (1,000)

## PX Gripper Optional Accessories

### Optional Power-Off Brake (Photo A)

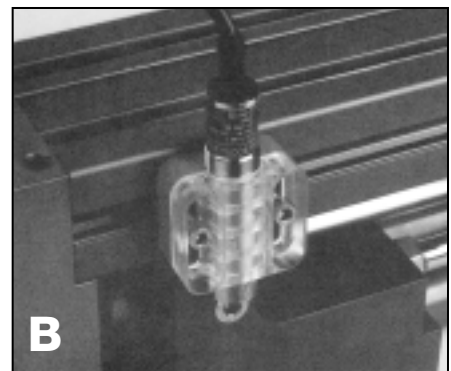
In applications that require the part be held even when pneumatic power is lost, the Power-Off Brake option provides an excellent solution. When pneumatic pressure is removed from the option a spring is allowed to rotate a collar that engages a collet brake system on the helix. Thus, the jaws are braked in position.

Either an encompassing jaw system or jaws with compliance must be used with this option. Jarring can cause some jaw movement.



### Optional Switch Kit (Photo B)

The switch mounting rail permits a broad range of switch configurations to be used. Kits are available to mount 6.5mm, 12mm, and 18mm standard, tubular proximity switches.

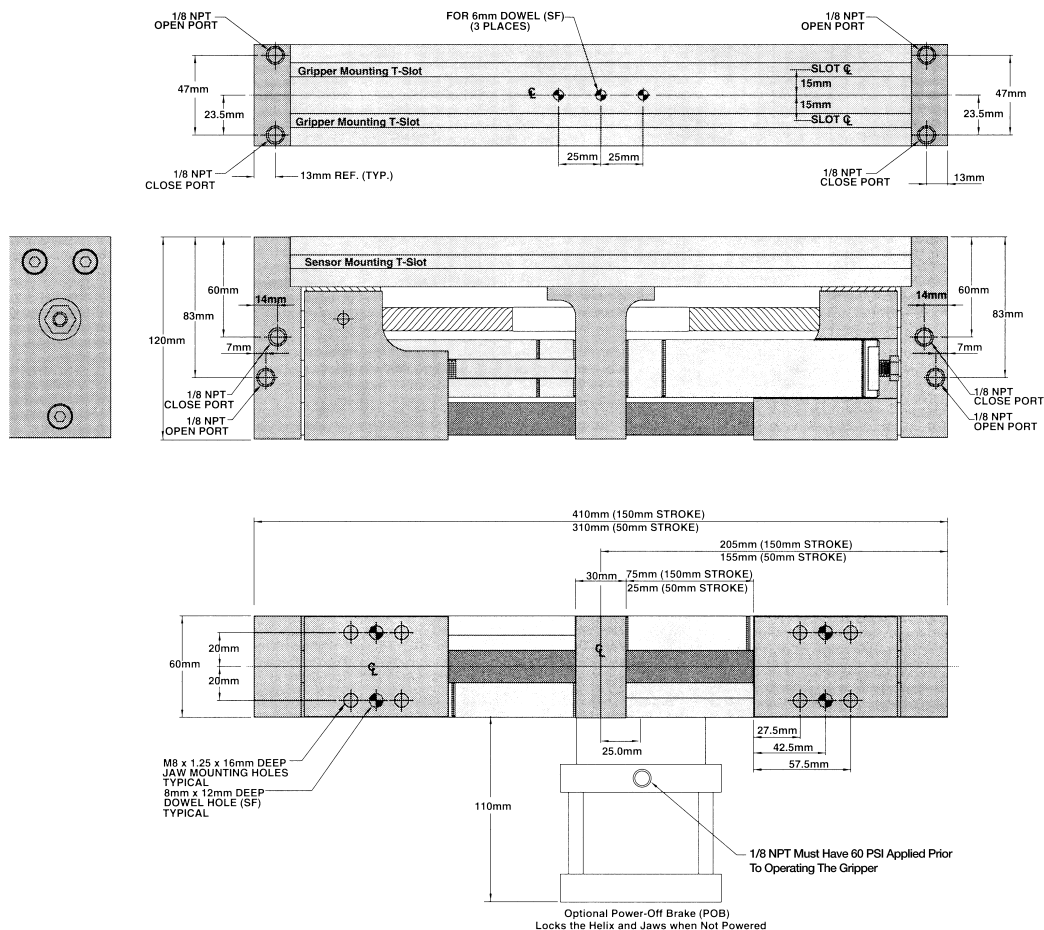


# MODEL PX-450-50/150

## Specifications

Gripping Force–Open & Close Each Jaw,  
 @ 100 psi (690kPa) ..... 100 lbs. (450N)  
 With PX-Int-2:1 Option ..... 200 lbs. (900N)  
 Maximum Operating Pressure..... 250 psi (1724Kpa)

Stroke: -50 ..... 1.97" (50mm)  
 -150 ..... 5.905" (150mm)  
 Weight -50 ..... 10.2 lbs. (4.6kg)  
 -150 ..... 11.3 lbs. (5.2kg)



## Ordering Information

Model	Brake	Force, Each Jaw	Stroke
PX-450-50	No	100 lbs. (450N)	1.97" (50mm)
PX-450-50-POB	Yes	100 lbs. (450N)	1.97" (50mm)
PX-450-150	No	100 lbs. (450N)	5.391" (150mm)
PX-450-150-POB	Yes	100 lbs. (450N)	5.391" (150mm)

## Gripper Accessory Kits (Field Installable)

Model	Description	Applicable Models
PX-KIT-450-6.5MM	Holder Only– To mount 6.5mm Proximity Switch	All
PX-KIT-450-12MM	Holder Only– To mount 12mm Proximity Switch	All
PX-KIT-450-18MM	Holder Only– To mount 18mm Proximity Switch	All
PX-INT-2:1-50	Intensifier–200 lbs. (900N)	-50 & -50-POB
PX-INT-2:1-150	Intensifier–200 lbs. (900N)	-150 & -150-POB



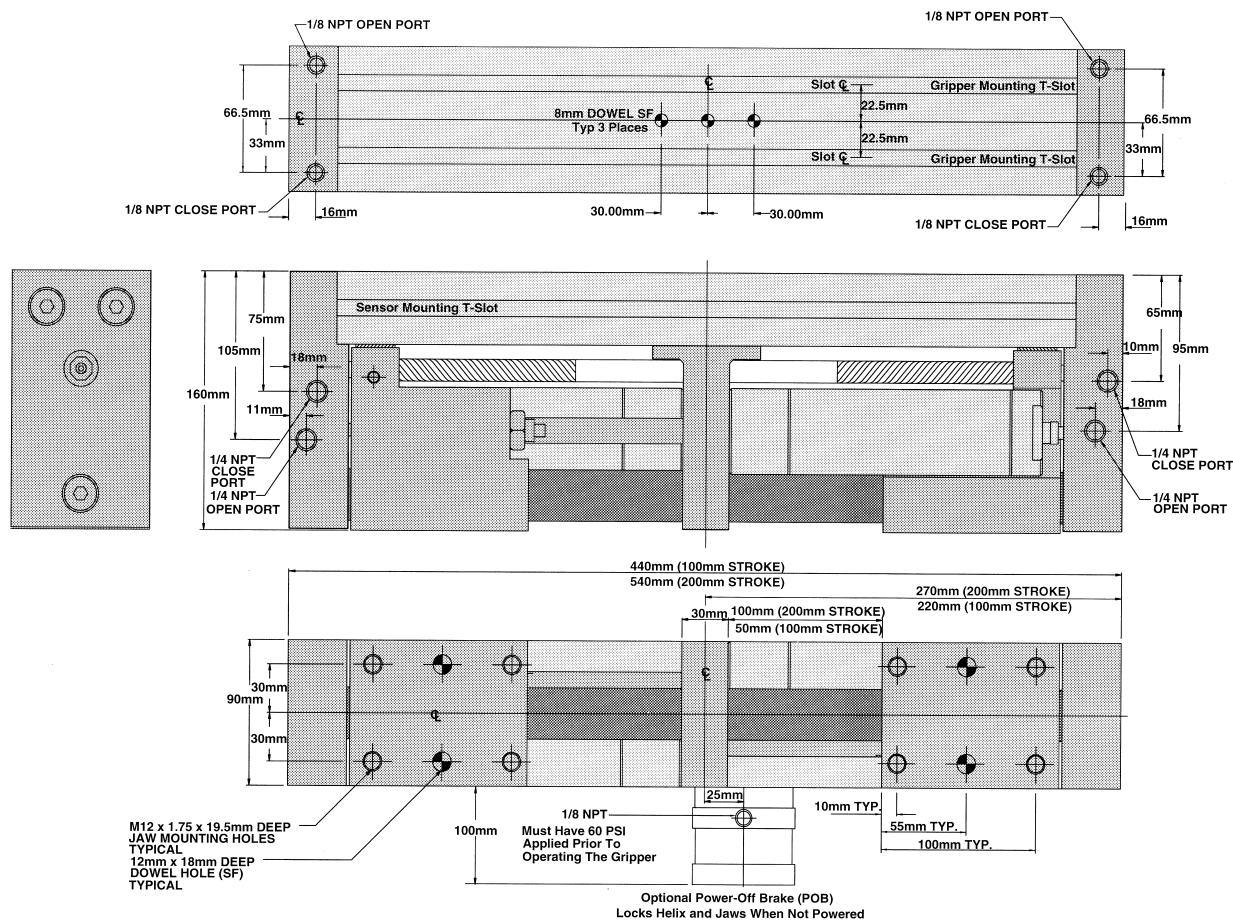
# MODEL PX-1250-100/200

## Specifications

Gripping Force–Open & Close Each Jaw,  
 @ 100 psi (690kPa) ..... 280 lbs. (1250N)  
 With PX-INT-2:1 Option ..... 560 lbs. (2500N)  
 Maximum Operating Pressure..... 250 psi (1724Kpa)

Stroke: -100 ..... 3.94" (100mm)  
 -200 ..... 7.87" (200mm)  
 Weight -100..... 27.8 lbs. (12.7kg)  
 -200..... 30.0 lbs. (13.6kg)

Note: Eight T-Nuts (8mm)  
 are supplied to mount  
 gripper.



## Ordering Information

Model	Brake	Force, Each Jaw	Stroke
PX-1250-100	No	280 lbs. (1250N)	3.94" (100mm)
PX-1250-100-POB	Yes	280 lbs. (1250N)	3.94" (100mm)
PX-1250-200	No	280 lbs. (1250N)	7.87" (200mm)
PX-1250-200-POB	Yes	280 lbs. (1250N)	7.87" (200mm)

## Gripper Accessory Kits (Field Installable)

Model	Description	Applicable Models
PX-KIT-1250-6.5MM	Holder Only– To mount 6.5mm Proximity Switch	All
PX-KIT-1250-12MM	Holder Only– To mount 12mm Proximity Switch	All
PX-KIT-1250-18MM	Holder Only– To mount 18mm Proximity Switch	All
PX-INT-2:1-100	Intensifier–560 lbs. (2500N)	-100 & -100-POB
PX-INT-2:1-200	Intensifier–560 lbs. (2500N)	-200 & -200-POB

# Robotic Accessories Sizer

**Please Copy Form, Fill Out And Fax or Mail to:**

Robotic Accessories  
6555 State Route 202  
Tipp City, Ohio 45371  
Phone: 937-667-5705 and Fax: 937-667-7602

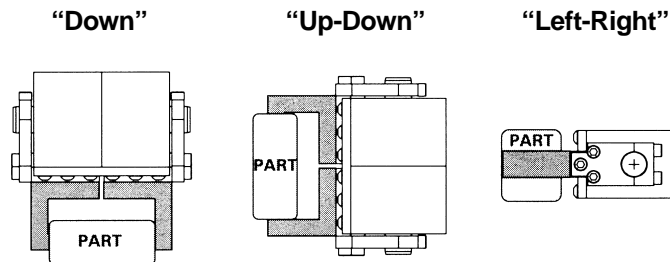
## Sizer Requested By:

Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City, State Zip: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
e-Mail: \_\_\_\_\_

## Application Description:

Max. Part Weight (pounds): \_\_\_\_\_  
Friction or Encompassing Grip: \_\_\_\_\_  
I.D. or O.D. Grip: \_\_\_\_\_  
Length to  $\text{C}$  of Part: \_\_\_\_\_  
G-Force Up-Down (Gs): \_\_\_\_\_  
G-Force Side to Side (Gs): \_\_\_\_\_  
Jaw Orientation (See Examples): \_\_\_\_\_  
System Pressure (PSI): \_\_\_\_\_

## Jaw Orientation Examples





## ROBOTIC ACCESSORIES LIMITED WARRANTY AND DISCLAIMER

Robotic Accessories warrants for one year from the date of purchase for normal use and service that its products are free from defects in materials, workmanship and design. In no instance shall the foregoing be construed as a warranty of fitness for a particular application, and Robotic Accessories accepts no responsibility of any kind for any of its products that have been subject to improper installation, application, negligence, tampering or abuse or that have been repaired or altered outside the Robotic Accessories factory. Seals and o-rings are specifically excluded from any warranty. The obligation of Robotic Accessories under this warranty is limited to repair, replacement or correction of any part or product determined by our inspection to be defective. We will not pay for loss of time, inconvenience, loss of use of your Robotic Accessories product, or property damage caused by your Robotic Accessories product or its failure to work, or any other incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you. Robotic Accessories makes no other warranties and disclaims responsibility for any damages resulting from use by any buyer or user. The liability of Robotic Accessories hereunder is limited to the lesser of the value of the product sold and the obligation to replace, repair or correct the defective part. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Written permission must be obtained from Robotic Accessories prior to returning any goods for warranty inspection purposes.

Robotic Accessories reserves the right to change designs and specifications without notice. All data and dimensions in catalogs have been thoroughly checked for accuracy; however, Robotic Accessories cannot assume responsibility for possible errors or omissions.



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