

Features

Optional Hall Effect Sensors

Read position of piston
 (Sold separately).
 Magnetic piston standard.

Stripper Plate

Optional stripper plate
 provides spring loaded
 part ejection.

Internal Components

Jaw components are precision
 ground for minimal jaw play and
 hardened for wear resistance and
 maximum life.

Body

One piece hard-coat
 anodized aluminum body
 with Teflon® impregnation.

Contaminant Tolerance

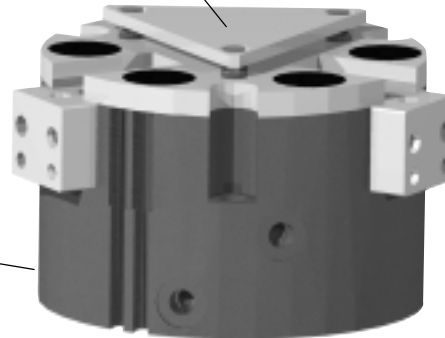
Sealed design resists
 internal contamination.

Seals

Self lubricating dynamic
 seals (Nitrile only)

Wedge Design

Efficient guided wedge design
 provides high force to weight ratio.
 Jaw components are precision
 ground to minimize play.



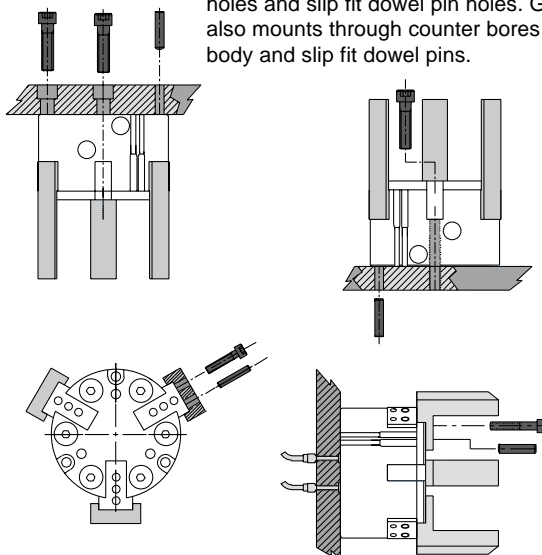
Operation

Operating Characteristic	Double acting, 3-jaw wedge design
Gripping Force @ 100 PSI	80 - 2800 lbs
Stroke Range	0.30 to 1.38 inches
Operating Pressure Range	20 - 100 PSI (1.5 - 7 bar)

Mounting

Gripper can be mounted in any orientation due to sealed housing design.

Gripper mounts from behind using tapped holes and slip fit dowel pin holes. Gripper also mounts through counter bores in the body and slip fit dowel pins.



Custom finger tooling mounts to end or bottom of jaws
 using tapped holes and precise tolerancing of fingers.

Contents

P5G-HPC-315	120
P5G-HPC-320	121
P5G-HPC-331	122
P5G-HPC-344	123
P5G-HPC-356	124
P5G-HPC-368	125
Metric Design Option	126
Stripper Plate Option	126
Fluorocarbon Seals	126
Sensors	126
Ordering Information	127

P5G-HPC-315M-SP-V

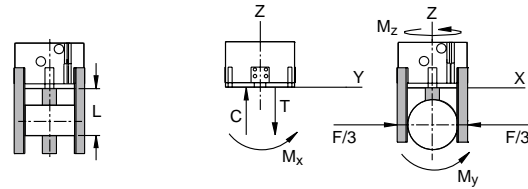
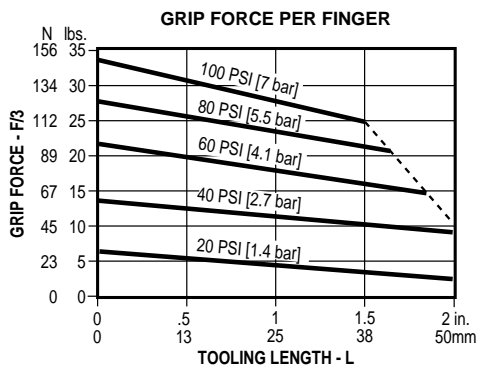


Total Grip Force (100 psi @ 1 in)	80 lbs	356 N
Stroke	0.30 in	7.6 mm
Weight	0.53 lbs	0.24 kg
Bore Size	1.250 in	31.8 mm
Cylinder Volume	1.040 in ³	17.0 cm ³
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	-30° to 180° F	-35° to 80° C
Pressure Range	20-100 psi	1.5-7 bar
Filtration Requirement	40 micron (dry air)	

* Fluorocarbon seals available for high temperature applications

Note: See model code and ordering information page for complete part number selection.

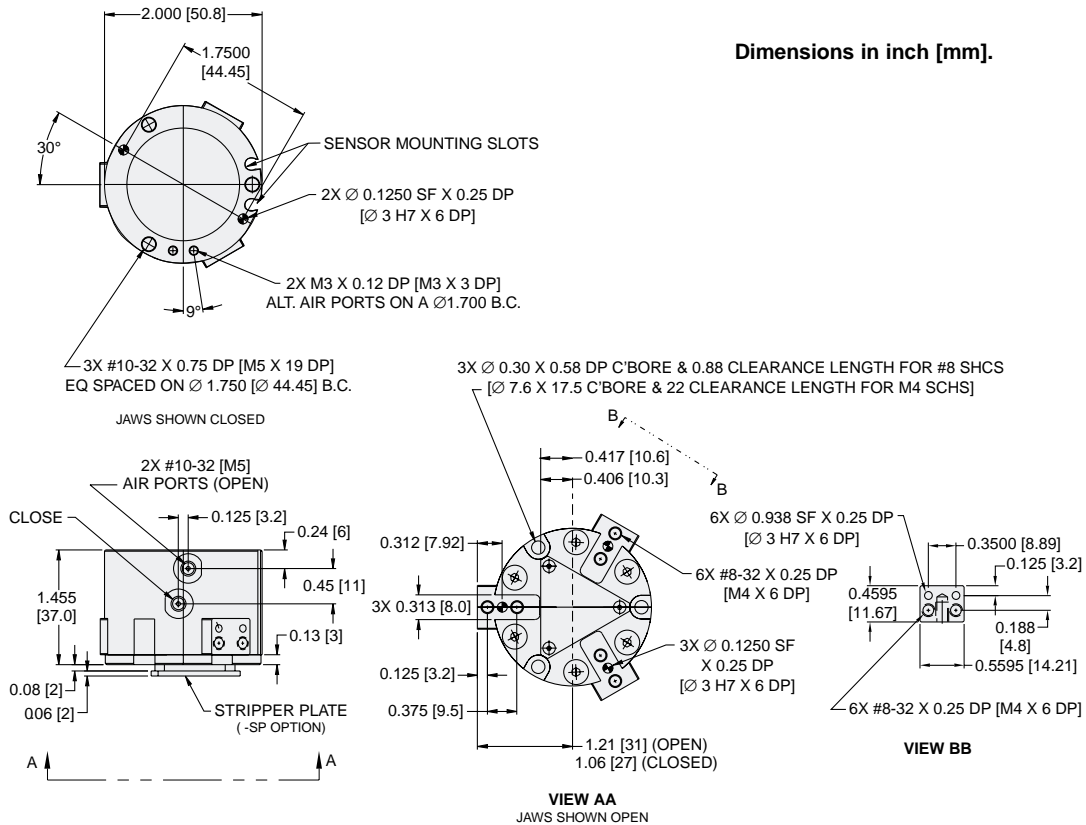
Loading Information



Maximum Loading Capacity

Load	Static		Dynamic	
	lbs	N	lbs	N
Axial Forces (C,T)	300 lbs	1334 N	100 lbs	445 N
Moment (Mx)	250 in-lbs	28 Nm	75 in-lbs	8 Nm
Moment (My)	250 in-lbs	28 Nm	75 in-lbs	8 Nm
Moment (Mz)	150 in-lbs	17 Nm	50 in-lbs	6 Nm

Dimensional Information



Dimensions in inch [mm].

P5G-HPC-320M-SP-V

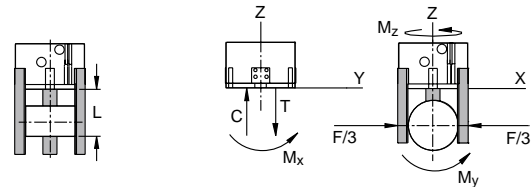
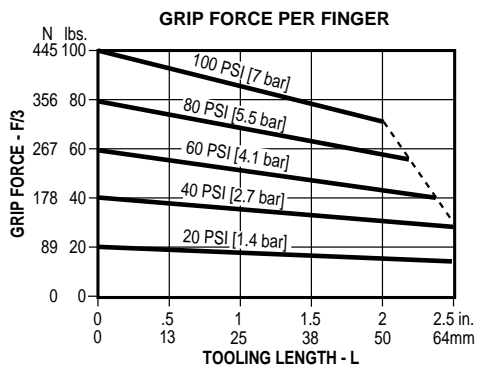


Total Grip Force (100 psi @ 1 in)	240 lbs	1068 N
Stroke	0.40 in	10.2 mm
Weight	1.0 lbs	0.45 kg
Bore Size	2.000 in	50.8 mm
Cylinder Volume	0.690 in ³	11.3 cm ³
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	-30° to 180° F	-35° to 80° C
Pressure Range	20-100 psi	1.5-7 bar
Filtration Requirement	40 micron (dry air)	

* Fluorocarbon seals available for high temperature applications

Note: See model code and ordering information page for complete part number selection.

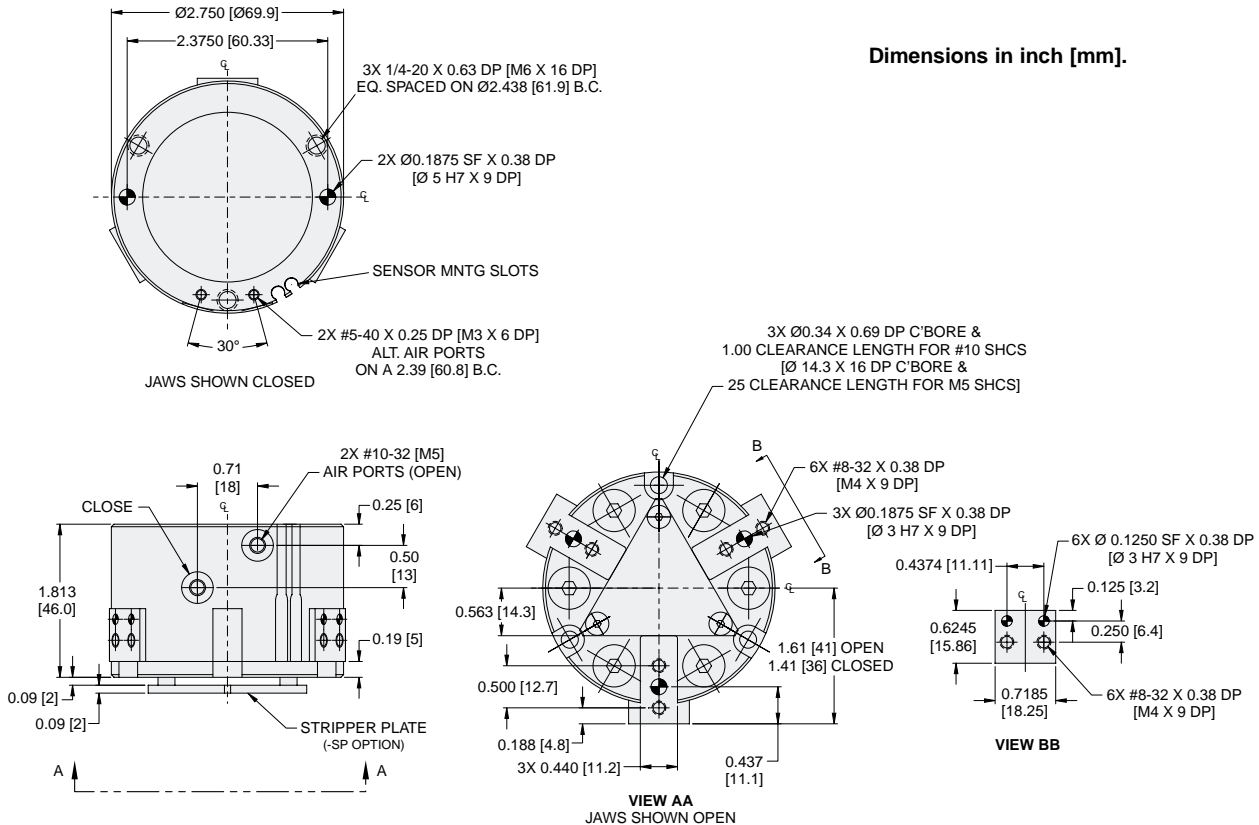
Loading Information



Maximum Loading Capacity

Load	Static		Dynamic	
	Units	Units	Units	Units
Axial Forces (C,T)	750 lbs	3336 N	250 lbs	1112 N
Moment (Mx)	750 in-lbs	85 Nm	255 in-lbs	28 Nm
Moment (My)	750 in-lbs	85 Nm	255 in-lbs	28 Nm
Moment (Mz)	350 in-lbs	40 Nm	100 in-lbs	11 Nm

Dimensional Information



P5G-HPC-331M-SP-V

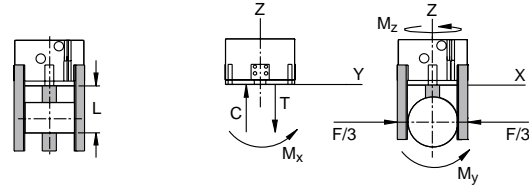
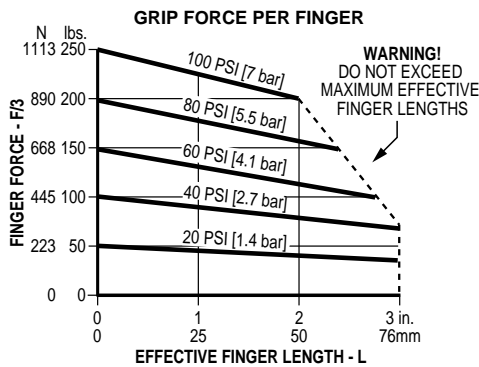


Total Grip Force (100 psi @ 1 in)	675 lbs	3002 N
Stroke	0.62 in	15.7 mm
Weight	3.0 lbs	1.4 kg
Bore Size	2.750 in	69.8 mm
Cylinder Volume	2.815 in ³	46.1cm ³
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	-30° to 180° F	-35° to 80° C
Pressure Range	20-100 psi	1.5-7 bar
Filtration Requirement	40 micron (dry air)	

* Fluorocarbon seals available for high temperature applications

Note: See model code and ordering information page for complete part number selection.

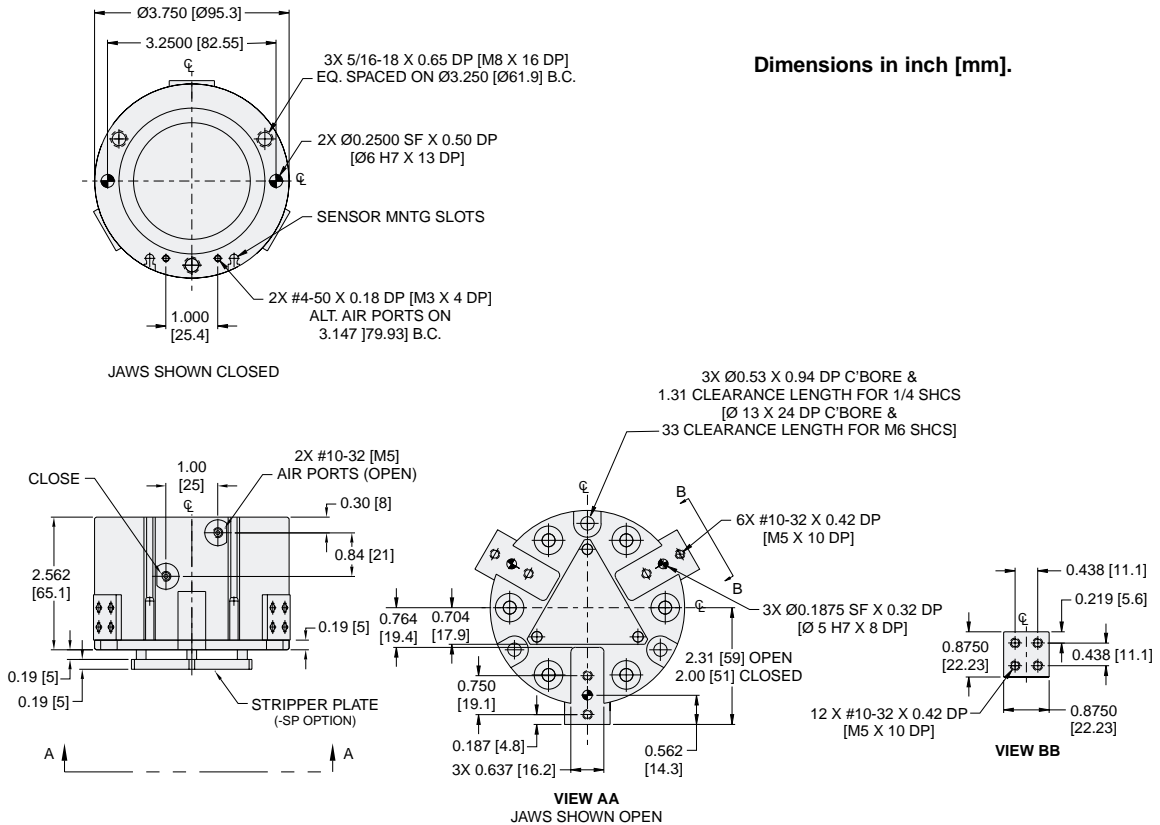
Loading Information



Maximum Loading Capacity

	Static		Dynamic	
Axial Forces (C,T)	1250 lbs	5560 N	400 lbs	1779 N
Moment (Mx)	1250 in-lbs	141 Nm	400 in-lbs	45 Nm
Moment (My)	1250 in-lbs	141 Nm	400 in-lbs	45 Nm
Moment (Mz)	1000 in-lbs	113 Nm	300 in-lbs	34 Nm

Dimensional Information



P5G-HPC-356M-SP-V

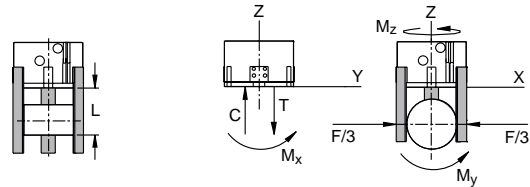
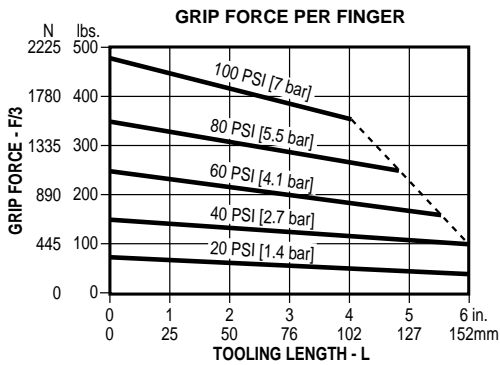


Total Grip Force (100 psi @ 1 in)	1357 lbs	6036 N
Stroke	1.12 in	28.4 mm
Weight	9.75 lbs	4.4 kg
Bore Size	4.500 in	114.3 mm
Cylinder Volume	11.674 in ³	191.3cm ³
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	-30° to 180° F	-35° to 80° C
Pressure Range	20-100 psi	1.5-7 bar
Filtration Requirement	40 micron (dry air)	

* Fluorocarbon seals available for high temperature applications

Note: See model code and ordering information page for complete part number selection.

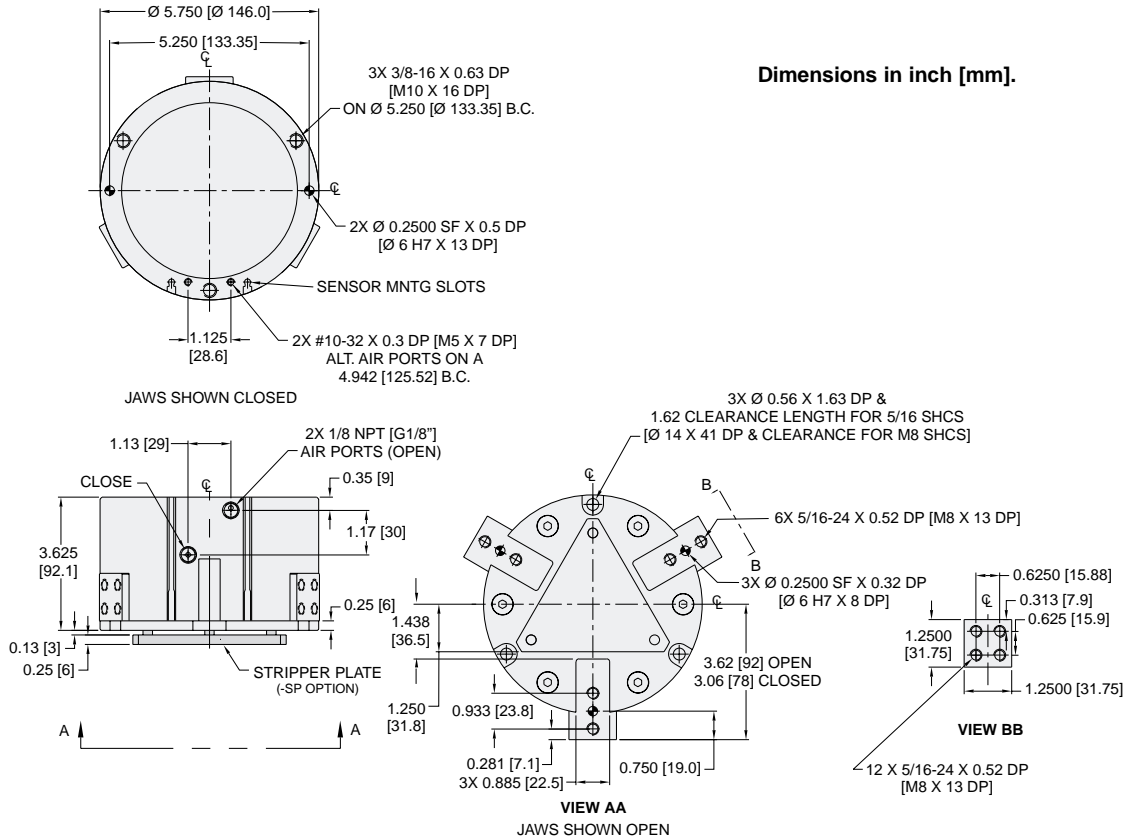
Loading Information



Maximum Loading Capacity

	Static		Dynamic	
Axial Forces (C,T)	3000 lbs	13345 N	1000 lbs	4448 N
Moment (Mx)	4000 in-lbs	452 Nm	1000 in-lbs	113 Nm
Moment (My)	4000 in-lbs	452 Nm	1000 in-lbs	113 Nm
Moment (Mz)	3000 in-lbs	339 Nm	750 in-lbs	85 Nm

Dimensional Information



P5G-HPC-368M-SP-V

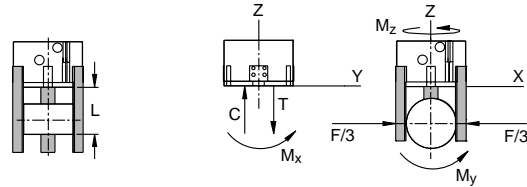
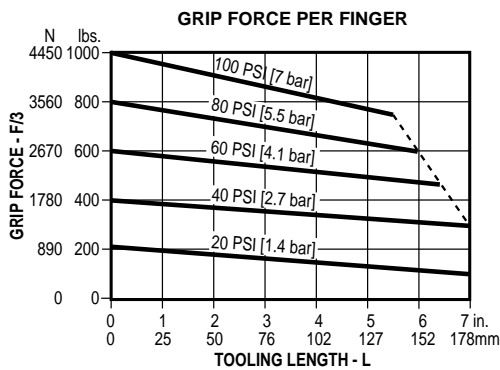


Total Grip Force (100 psi @ 1 in)	2800 lbs	12455 N
Stroke	1.38 in	34.9 mm
Weight	16 lbs	7.3 kg
Bore Size	5.250 in	133.3 mm
Cylinder Volume	23.000 in ³	376.9 cm ³
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	-30° to 180° F	-35° to 80° C
Pressure Range	20-100 psi	1.5-7 bar
Filtration Requirement	40 micron (dry air)	

* Fluorocarbon seals available for high temperature applications

Note: See model code and ordering information page for complete part number selection.

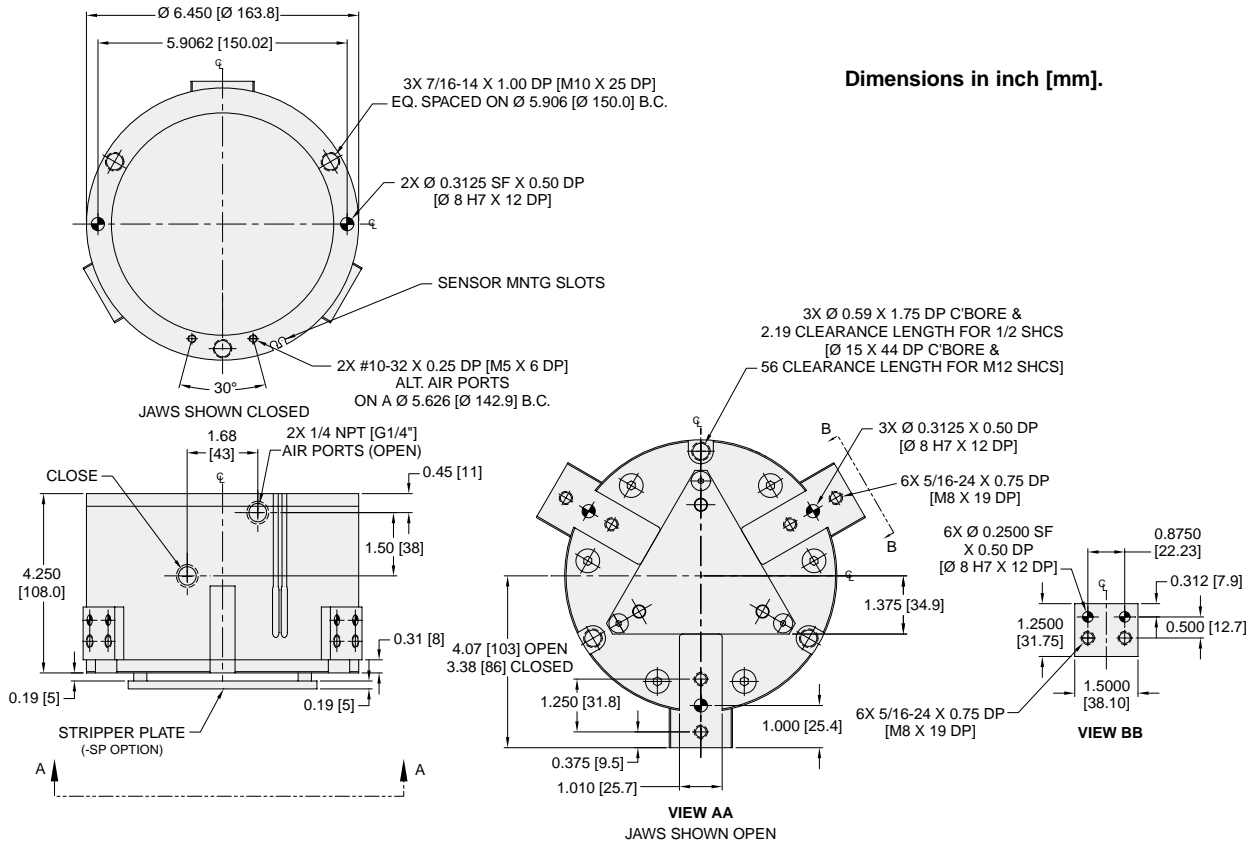
Loading Information



Maximum Loading Capacity

	Static		Dynamic	
Axial Forces (C and T)	5000 lbs	22241 N	1500 lbs	6672 N
Moment (Mx)	7000 in-lbs	791 Nm	1500 in-lbs	170 Nm
Moment (My)	7000 in-lbs	791 Nm	1500 in-lbs	170 Nm
Moment (Mz)	5000 in-lbs	565 Nm	1000 in-lbs	113 Nm

Dimensional Information



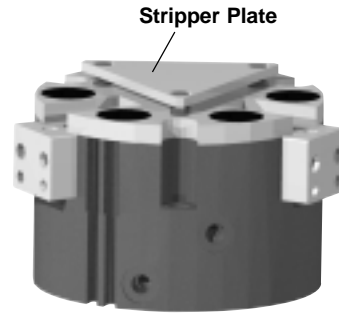
Metric Design (M)

The standard unit is manufactured with imperial mounting and porting. When metric design option is specified, the gripper incorporates metric threads and ports.

See dimensional drawings for details.

Stripper Plate (SP)

Spring loaded stripper plate can be used in high speed applications to "eject" parts from the gripper fingers.



Fluorocarbon Seals (V)

Standard nitrile seals should be used for general purpose applications with temperatures of -30° to 180°F (-35° to 80°C). Fluorocarbon seals are recommended for high temperature applications up to 250°F (120°C).

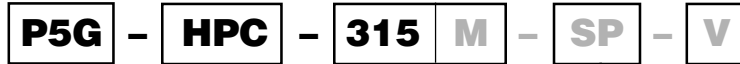
Seal Type	Temperature Range
Standard Buna-N	-30° to 180°F (-35° to 80°C)
Fluorocarbon	-20° to 250°F (-30° to 120°C)

Hall Effect Sensors

Hall effect sensors provide feedback to the position of the gripper fingers by sensing a magnet within the piston. Sensors mount in the sensor mounting grooves in the gripper body and are adjustable to sense along the full travel of the piston.

Order sensors and cables separately. See Sensor section for part numbers and sensor specifications.

Model Code and Ordering Information



Type

P5G – Pneumatic Gripper

Series

HPC

Size

- 315 – 1.25 inch Bore, 0.30 inch Stroke
- 320 – 2.00 inch Bore, 0.40 inch Stroke
- 331 – 2.75 inch Bore, 0.62 inch Stroke
- 344 – 3.50 inch Bore, 0.88 inch Stroke
- 356 – 4.50 inch Bore, 1.12 inch Stroke
- 368 – 5.25 inch Bore, 1.38 inch Stroke

Design

- Omit – Imperial Design (Standard)
- M – Metric Design

Stripper Plate

- Omit – No Stripper Plate (Standard)
- SP – Stripper Plate Option

Seals

- Omit – Nitrile Seals (Standard)
- V – Fluorocarbon Seals

Seal Kits

Size	Nitrile Seal Kit	Fluorocarbon Seal Kit
P5G-HPC-315	PSK-P5G-HPC-315	PSK-P5G-HPC-315V
P5G-HPC-320	PSK-P5G-HPC-320	PSK-P5G-HPC-320V
P5G-HPC-331	PSK-P5G-HPC-331	PSK-P5G-HPC-331V
P5G-HPC-344	PSK-P5G-HPC-344	PSK-P5G-HPC-344V
P5G-HPC-356	PSK-P5G-HPC-356	PSK-P5G-HPC-356V
P5G-HPC-368	PSK-P5G-HPC-368	PSK-P5G-HPC-368V