

RPS SERIES

2-Jaw General Industrial Parallel Grippers | Features and Benefits | How To Order

Features:

- Robust sealed design gripper
- Double wedge design for high impact applications
- Spring assist option for part retention in case of air pressure loss
- Inductive jaw location sensing
- Grip force range from 222N [50 lbs] to 2669N [600 lbs]
- Stroke Range from 6.4mm [0.25 in] to 31.8mm [1.25 in]

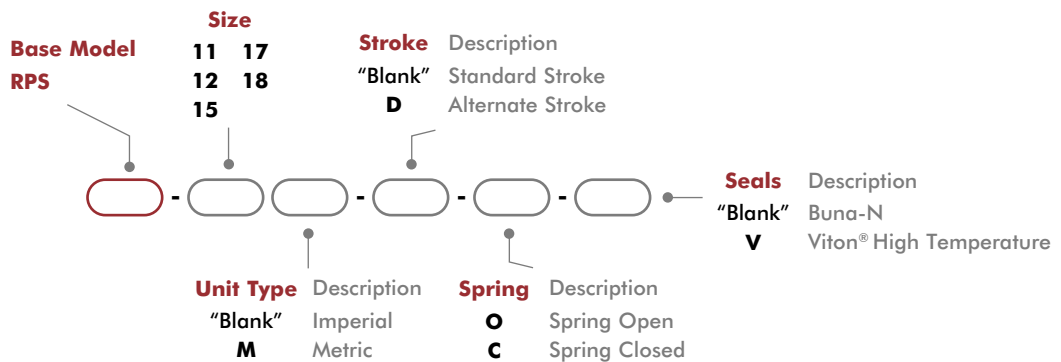
Applications:

- Automotive assembly
- Critical Part drop prevention applications
- General purpose spring assist gripping
- Packaging applications



U.S. Patent #5,125,708

How To Order



Accessories

Sensor Accessories	Model Numbers	Part Number	Qty/Unit
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	See Datasheet		1
NPN Inductive Sensor with Quick Disconnect*	11, 12, 15	OISN-019	1-2
PNP Inductive Sensor with Quick Disconnect*	11, 12, 15	OISP-019	1-2
NPN Inductive Sensor with Quick Disconnect*	17, 18	OISN-011	1-2
PNP Inductive Sensor with Quick Disconnect*	17, 18	OISP-011	1-2
Quick Disconnect 2 Meter Cable Length*	All Models	CABL-010	1-2
Quick Disconnect 5 Meter Cable Length*	All Models	CABL-013	1-2

Pneumatic Accessories	Model Numbers	Part Number	Qty/Unit
Fail Safe Valve (Imperial)	See Datasheet		1
Fail Safe Valve (Metric)	See Datasheet		1

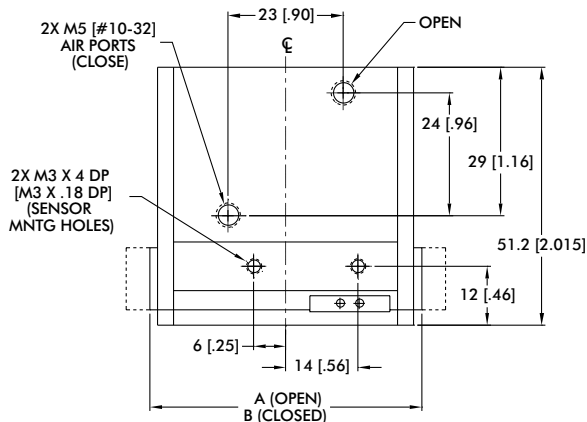
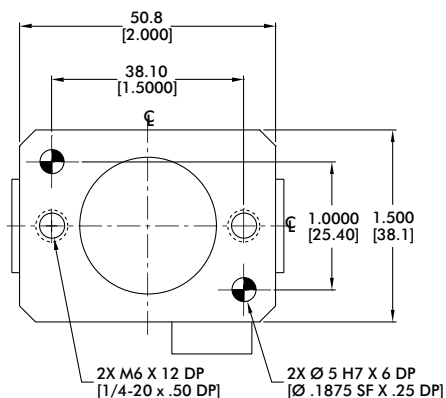
*Sensor and cable sold separately.

2-Jaw General Industrial Parallel Grippers | Technical Specifications

Specifications	Units	11	11-D	12	12-D	15	15-D
Total Rated Grip Force F @ 100 psi [7 bar]	N [lbs]	222 [50]	378 [85]	267 [60]	400 [90]	400 [90]	110 [489]
Total Stroke	mm [in]	6.4 [0.25]	4 [0.16]	9.5 [0.38]	6 [0.24]	12.7 [0.50]	8 [0.31]
Weight	kg [lbs]	0.16 [0.36]		0.34 [0.76]		0.65 [1.44]	
Pressure Range	bar [psi]	3.4-7 [50-100]					
Ingress Protection Class (IP)		IP43					
Displacement	cm ³ [in ³]	1.6 [0.098]		2.5 [0.150]		4.9 [0.300]	
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]					
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]					
Actuation	sec	0.15				0.17	
Accuracy	mm [in]	±0.05 [±0.002]					
Repeatability	mm [in]	±0.03 [±0.001]					
Valve to Required Actuate Single Acting		3-way, 2-position					
Valve to Required Actuate Double Acting		4-way, 2-position					

Specifications	Units	17	17-D	18	18-D
Total Rated Grip Force F @ 100 psi [7 bar]	N [lbs]	1334 [300]	180 [800]	2669 [600]	380 [1690]
Total Stroke	mm [in]	19.1 [0.75]	28 [1.10]	31.8 [1.25]	43 [1.70]
Weight	kg [lbs]	1.4 [3.00]		5.0 [11.02]	
Pressure Range	bar [psi]	3-7 [40-100]			
Ingress Protection Class (IP)		IP43			
Displacement	cm ³ [in ³]	22.9 [1.400]		72.1 [4.400]	
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]			
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]			
Actuation	sec	0.31		0.51	
Accuracy	mm [in]	±0.08 [±0.003]			
Repeatability	mm [in]	±0.03 [±0.001]			
Valve to Required Actuate Single Acting		3-way, 2-position			
Valve to Required Actuate Double Acting		4-way, 2-position			

2-Jaw General Industrial Parallel Grippers | Dimensions and Technical Specifications



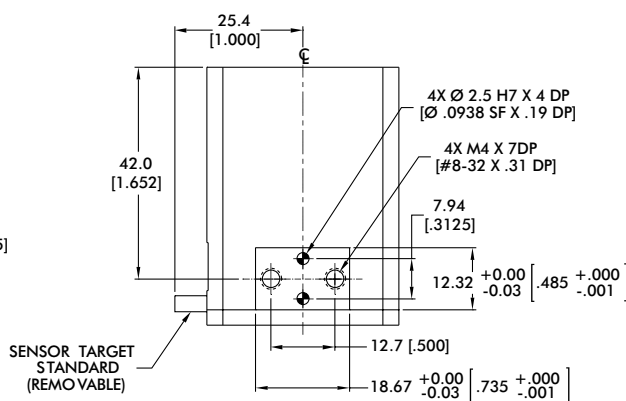
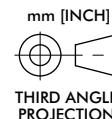
JAWS SHOWN IN CLOSED POSITION
(HIDDEN LINES DENOTE OPEN POSITION)

Sensor Accessories	RPS-12
Inductive Sensor Mounting Kit (mounts 2 sensors)	OSMK-003

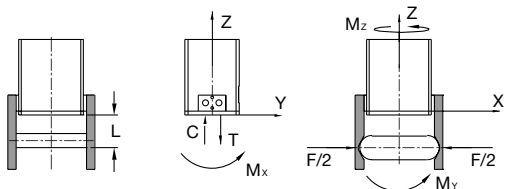
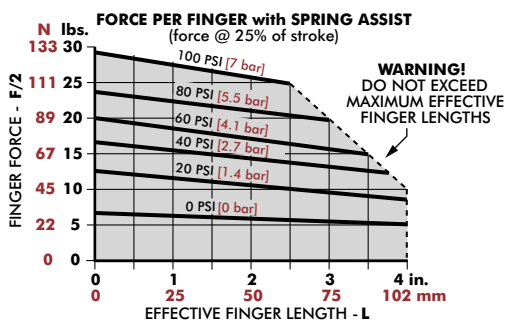
Seal Repair Kits	RPS-12
Buna-N Seal Repair Kit	SLKT-040
Viton® Seal Repair Kit	SLKT-040V

Pneumatic Accessories	RPS-12
Fail Safe Valve (Imperial)	OFSV-001
Fail Safe Valve (Metric)	OFSV-004

Model	A	B
RPS-12	63 [2.50]	54 [2.13]
RPS-12-D	60 [2.37]	

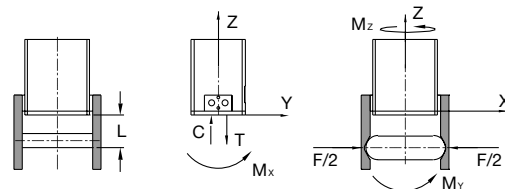
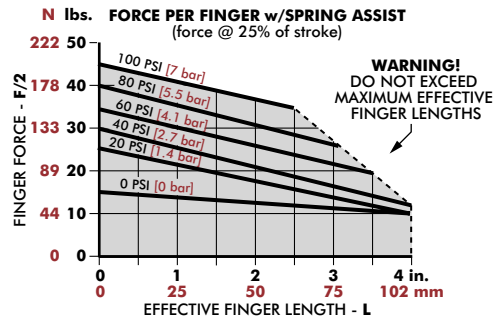


Loading Information



RPS-12	Static	Dynamic
Maximum Tensile T	890 N [200 lbs]	222 N [50 lbs]
Maximum Compressive C	1779 N [400 lbs]	222 N [50 lbs]
Maximum Moment M_x	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]
Maximum Moment M_y	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]
Maximum Moment M_z	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]

*Capacities are per set of jaws and are not simultaneous

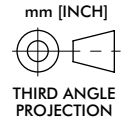
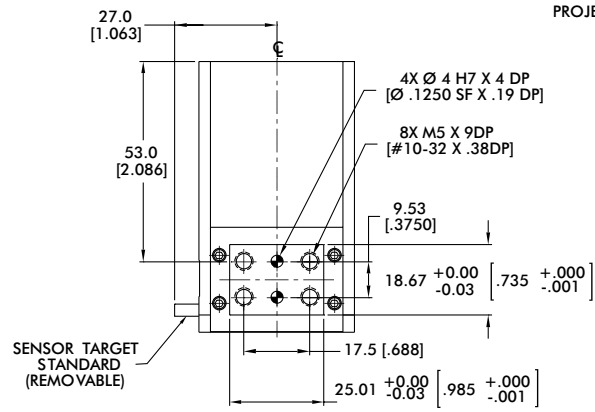
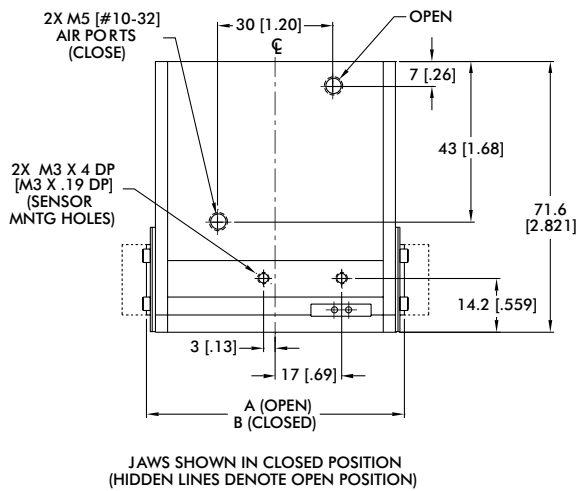
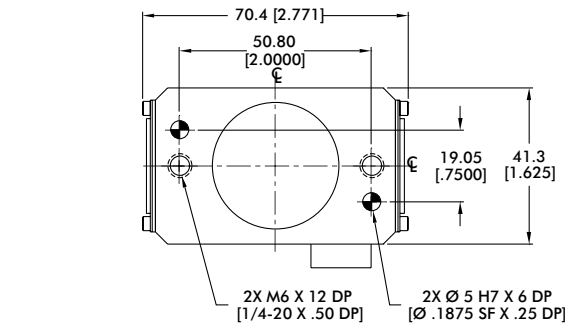


RPS-12-D	Static	Dynamic
Maximum Tensile T	890 N [200 lbs]	222 N [50 lbs]
Maximum Compressive C	1779 N [400 lbs]	222 N [50 lbs]
Maximum Moment M_x	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]
Maximum Moment M_y	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]
Maximum Moment M_z	17 Nm [150 in-lbs]	6 Nm [50 in-lbs]

*Capacities are per set of jaws and are not simultaneous

RPS-15

2-Jaw General Industrial Parallel Grippers | Dimensions and Technical Specifications



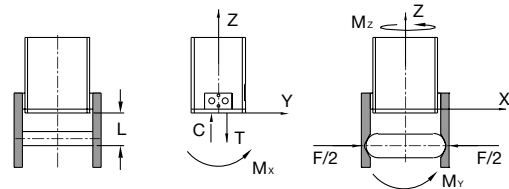
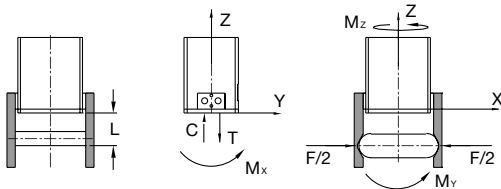
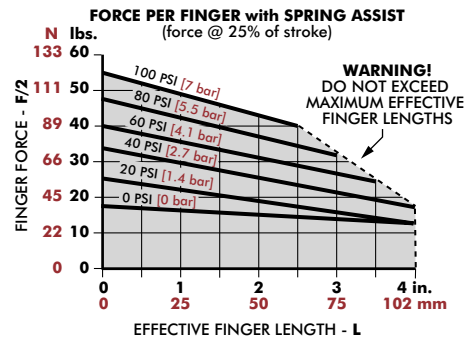
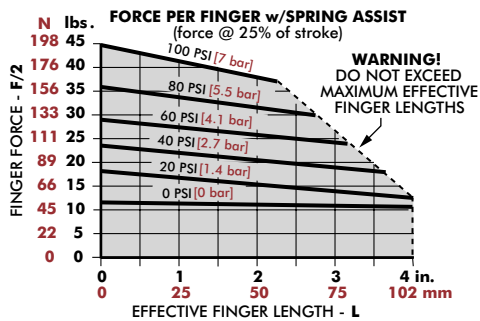
Sensor Accessories	RPS-15
Inductive Sensor Mounting Kit (mounts 2 sensors)	OSMK-003

Seal Repair Kits	RPS-15
Buna-N Seal Repair Kit	SLKT-041
Viton® Seal Repair Kit	SLKT-041V

Pneumatic Accessories	RPS-15
Fail Safe Valve (Imperial)	OFSV-001
Fail Safe Valve (Metric)	OFSV-004

Model	A	B
RPS-15	81 [3.19]	68 [2.69]
RPS-15-D	76 [3.00]	

Loading Information



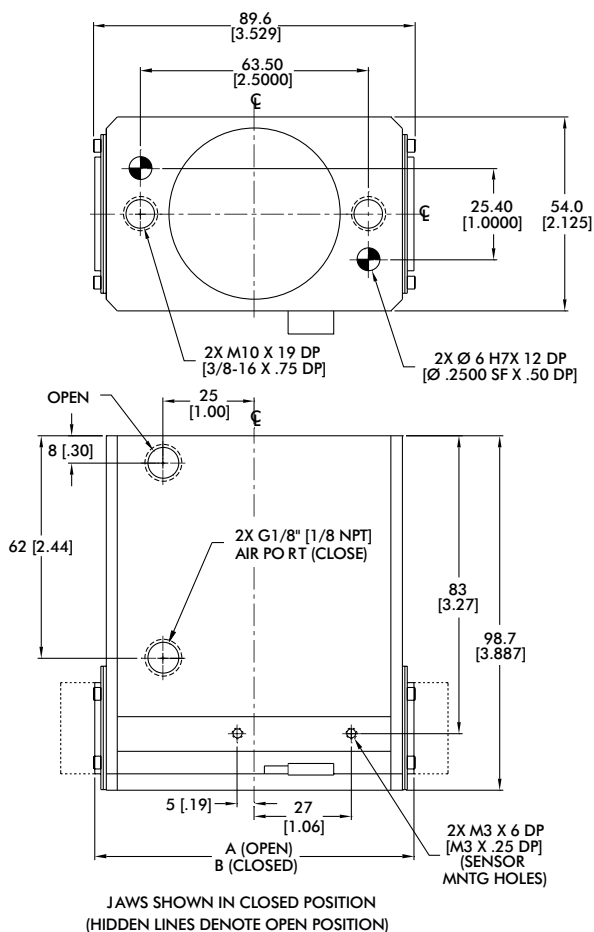
RPS-15	Static	Dynamic
Maximum Tensile T	1779 N [400 lbs]	445 N [100 lbs]
Maximum Compressive C	3336 N [750 lbs]	445 N [100 lbs]
Maximum Moment M_x	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]
Maximum Moment M_y	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]
Maximum Moment M_z	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]

*Capacities are per set of jaws and are not simultaneous

RPS-15-D	Static	Dynamic
Maximum Tensile T	1779 N [400 lbs]	445 N [100 lbs]
Maximum Compressive C	3336 N [750 lbs]	445 N [100 lbs]
Maximum Moment M_x	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]
Maximum Moment M_y	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]
Maximum Moment M_z	34 Nm [300 in-lbs]	11 Nm [100 in-lbs]

*Capacities are per set of jaws and are not simultaneous

2-Jaw General Industrial Parallel Grippers | Dimensions and Technical Specifications

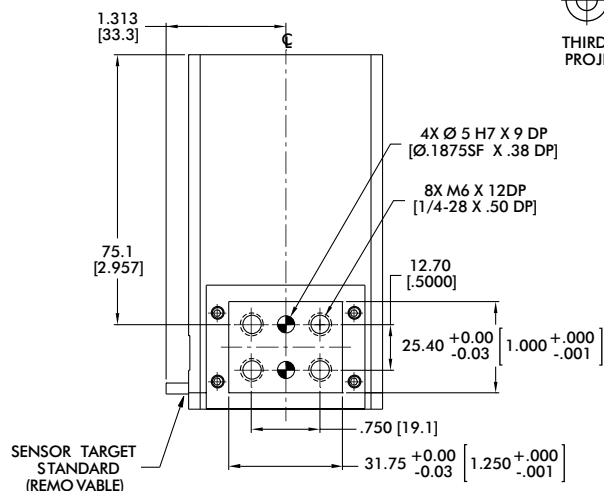
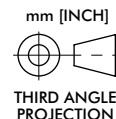


Sensor Accessories	RPS-17
Inductive Sensor Mounting Kit (mounts 2 sensors)	OSMK-072

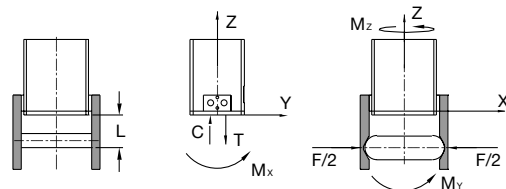
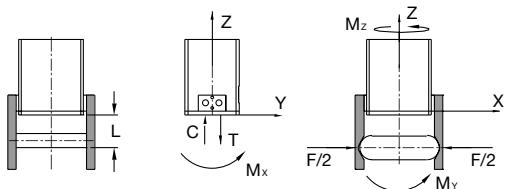
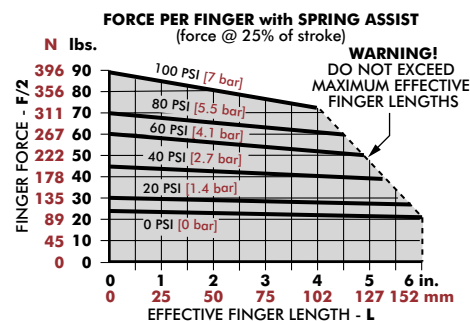
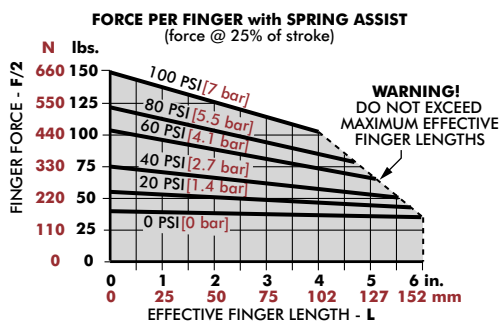
Seal Repair Kits	RPS-17
Buna-N Seal Repair Kit	SLKT-042
Viton® Seal Repair Kit	SLKT-042V

Pneumatic Accessories	RPS-17
Fail Safe Valve (Imperial)	OFSV-002
Fail Safe Valve (Metric)	OFSV-005

Model	A	B
RPS-17	107 [4.25]	
RPS-17-D	117 [4.60]	89 [3.50]



Loading Information



RPS-17	Static	Dynamic
Maximum Tensile T	3336 N [750 lbs]	890 N [200 lbs]
Maximum Compressive C	6672 N [1500 lbs]	890 N [200 lbs]
Maximum Moment M_x	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]
Maximum Moment M_y	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]
Maximum Moment M_z	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]

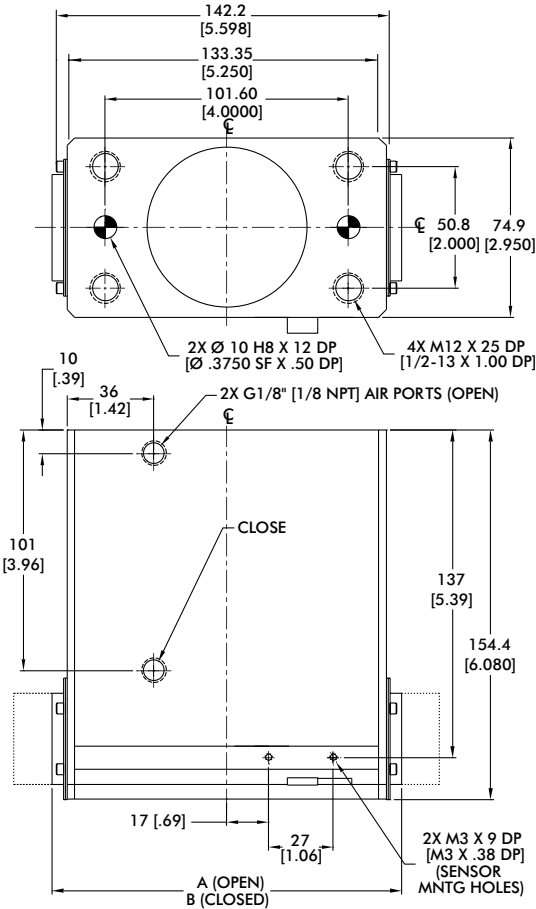
¹Capacities are per set of jaws and are not simultaneous

RPS-17-D	Static	Dynamic
Maximum Tensile T	3336 N [750 lbs]	890 N [200 lbs]
Maximum Compressive C	6672 N [1500 lbs]	890 N [200 lbs]
Maximum Moment M_x	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]
Maximum Moment M_y	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]
Maximum Moment M_z	85 Nm [750 in-lbs]	28 Nm [250 in-lbs]

¹Capacities are per set of jaws and are not simultaneous

RPS-18

2-Jaw General Industrial Parallel Grippers | Dimensions and Technical Specifications



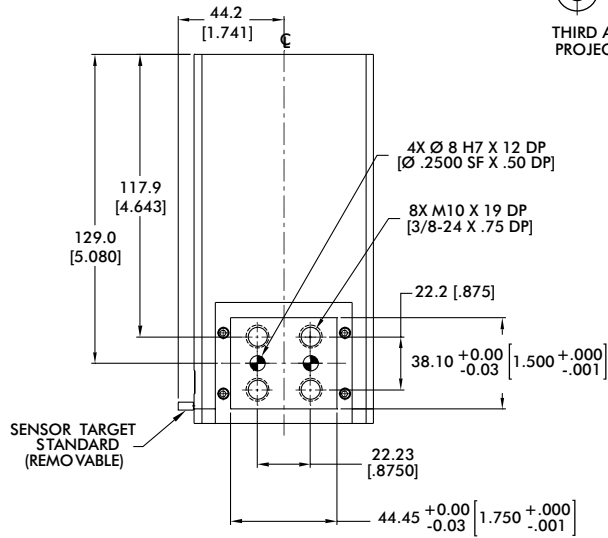
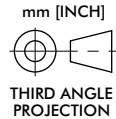
JA WS SHOWN IN CLOSED POSITION
(HIDDEN LINES DENOTE OPEN POSITION)

Sensor Accessories	RPS-18
Inductive Sensor Mounting Kit (mounts 2 sensors)	OSMK-072

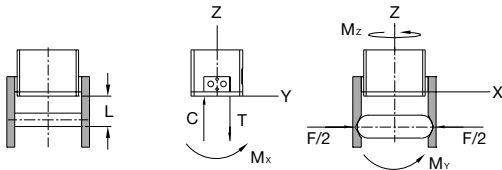
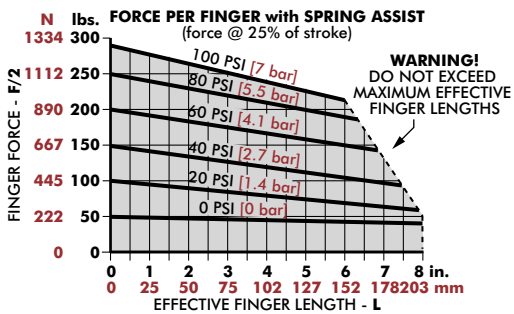
Seal Repair Kits	RPS-18
Buna-N Seal Repair Kit	SLKT-043
Viton® Seal Repair Kit	SLKT-043V

Pneumatic Accessories	RPS-18
Fail Safe Valve (Imperial)	OFSV-002
Fail Safe Valve (Metric)	OFSV-005

Model	A	B
RPS-18	177 [7.00]	146 [5.75]
RPS-18-D	190 [7.45]	

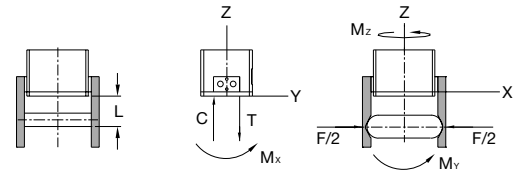
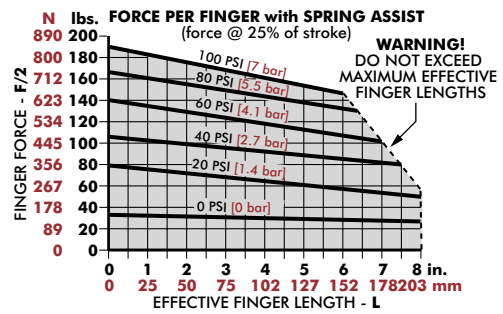


Loading Information



RPS-18	Static	Dynamic
Maximum Tensile T	6672 N [1500 lbs]	2224 N [500 lbs]
Maximum Compressive C	13345 N [3000 lbs]	2224 N [500 lbs]
Maximum Moment M_x	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]
Maximum Moment M_y	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]
Maximum Moment M_z	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]

*Capacities are per set of jaws and are not simultaneous






RPS-18-D	Static	Dynamic
Maximum Tensile T	6672 N [1500 lbs]	2224 N [500 lbs]
Maximum Compressive C	13345 N [3000 lbs]	2224 N [500 lbs]
Maximum Moment M_x	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]
Maximum Moment M_y	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]
Maximum Moment M_z	170 Nm [1500 in-lbs]	57 Nm [500 in-lbs]

*Capacities are per set of jaws and are not simultaneous

PNEUMATIC HEAVY DUTY GRIPPERS

Product Overview

	Model	Stroke mm [in]	Grip Force N [lbs]	Operating Environment	Special Features	Page GR-HDP-#
DPW		19.05-63.5 [0.75-2.5]	222-801 [50-180]	IP66, Harsh Environment	High Impact Loading Gripper. Long Finger Lengths. Ideal for Long or Wide Part Handling. DIRECTCONNECT	3
RPB		101.6-203.2 [4.0-8.0]	2669 [600]	IP55 Using Purge Port & Shield Option, Harsh Environment	Gantry Systems, Heavy Payloads. Long Stroke. High Precision. Long Finger Lengths.	9
RPW		19.1-114.3 [0.75-4.5]	222-2091 [50-470]	IP54, Harsh Environment	High Impact Loading Gripper. Long Finger Lengths. Ideal for Long or Wide Part Handling.	13

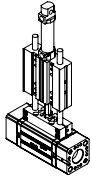
PNEUMATIC HEAVY DUTY GRIPPERS

2-Jaw Heavy-Duty Parallel Grippers | DIRECTCONNECT™ Mounting Compatibility Chart

Modular DIRECTCONNECT Mounting Style Examples:

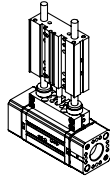
Products can be mounted in multiple positions. Refer to datasheet for complete info.

Slide to Gripper



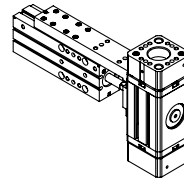
DLT Thruster Slide to DPW Parallel Gripper

Slide to Gripper



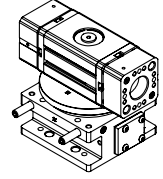
DLT Thruster Slide to DPW Parallel Gripper

Slide to Gripper



DLM Thruster Slide to DPW Parallel Gripper

Rotary to Gripper



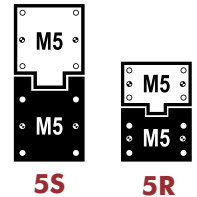
DRF Rotary Actuator to DPW Parallel Gripper

DIRECTCONNECT™ Mounting Compatibility Chart

DESTACO's DIRECTCONNECT™ technology, allows all components of the system—grippers, rotaries and slides—to be mounted together directly. Look for matching icons on product datasheets for mounting compatibility.

Note: The numbers in the cell represent the metric screw size and basic mounting pattern.

S=Square, R=Rectangle. ie; 5S = M5 Screw with square mounting pattern.



Catalog Models		Grippers	
		DPW-250	DPW-375, 500
Base Slides	DLB-06,08	3R	
	DLB-10,12,16		5R
	DLB-20,25		
Thruster Slides	DLT-06,08	3R	
	DLT-10,12,16	3R	5R
	DLT-20,25		5R
	DLM-07	3R	
	DLM-9,12	3R	5R
Rotary Actuators	DRF-075,094	3R	5R
	DRF-106	3R	5R
	DRF-131		5R