

# DPDS SERIES

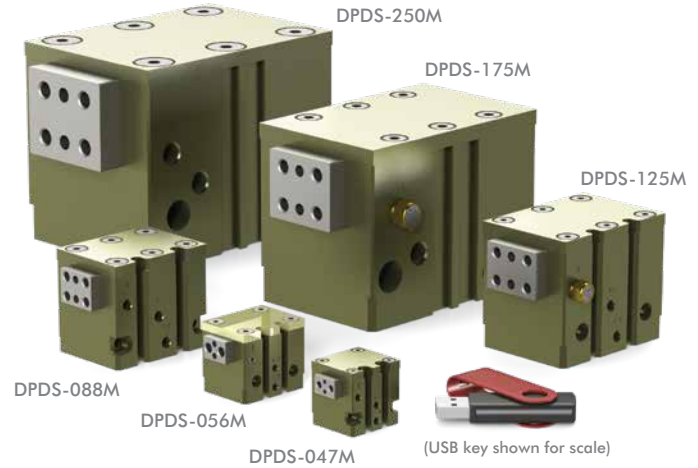
## 2-Jaw General Industrial Grippers | Features and Benefits | How To Order

### Features:

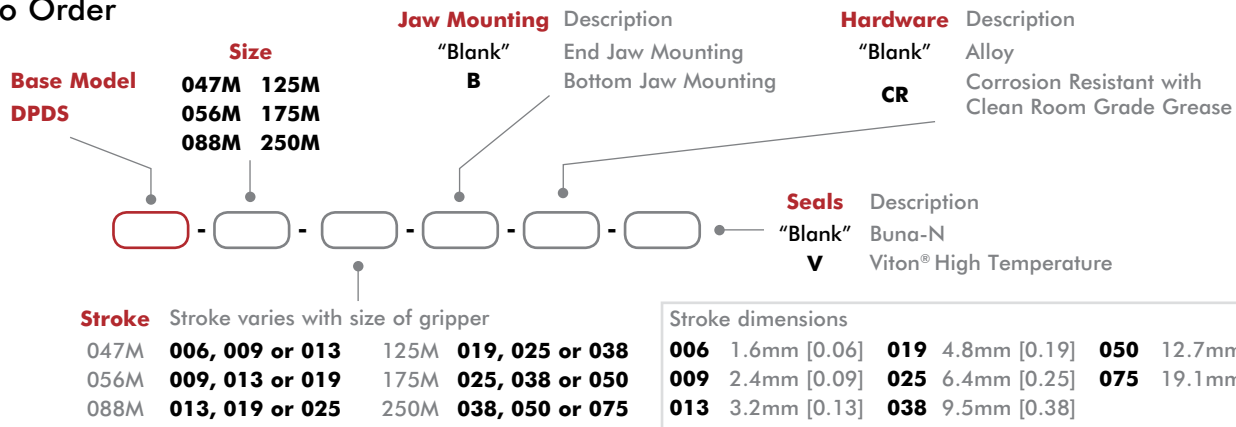
- Rugged general purpose modular gripper
- High impact resistant with double wedge design
- Finger mounting on end or bottom of jaws
- Thru-body mounting and multiple mounting features simplifies installation
- Multiple air ports support manifold interface using O-rings
- Purge/scavenge ports for harsh & clean environments
- Corrosion resistance hardware option

### Applications:

- Compact, robust gripper for use in confined spaces requiring a high grip force
- Multiple part gripping using manifold feature to create gripper arrays
- Long finger gripping applications



### How To Order



### Accessories

Sensor Accessories	Model Numbers	Part Number	Qty/Unit
PNP Magneto Resistive Sensor with Quick Disconnect*	047M, 056M, 088M, 125M	OHSP-017	1-2
NPN Magneto Resistive Sensor with Quick Disconnect*	047M, 056M, 088M, 125M	OHSN-017	1-2
PNP Magneto Resistive Sensor with Quick Disconnect*	175M, 250M	OHSP-015	1-2
NPN Magneto Resistive Sensor with Quick Disconnect*	175M, 250M	OHSN-015	1-2
PNP Magneto Resistive Sensor (90° barrel) w/Qk. Disc.*	047M, 056M, 088M, 125M	OHSP-011	1-2
NPN Magneto Resistive Sensor (90° barrel) w/Qk. Disc.*	047M, 056M, 088M, 125M	OHSN-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
Plumbing Fitting - M3 male to 3mm OD Tube Push-in Style	047M, 056M	PLFT-021	1-2
Plumbing Fitting - M3 male to 2mm ID Tube Barb Style	047M, 056M	PLFT-022	1-2
Plumbing Fitting - 1/8 NPT Male to 1/8 BSPP Female	125M, 250M	PLFT-028	1-2
Adjustable Flow Control G 1/8 Elbow - 6mm OD Push-in	125M, 250M	VLVF-005	1-2
Adjustable Flow Control M5 Elbow - 6mm OD Push-in	088M, 125M	VLVF-008	1-2
Fail Safe Valve M5	088M, 125M	OFSV-004	1
Fail Safe Valve G 1/8 (1/8 BSPP)	175M, 250M	OFSV-005	1

\*Sensor and cable sold separately.

**DPDS SERIES****2-Jaw General Industrial Grippers | Technical Specifications**

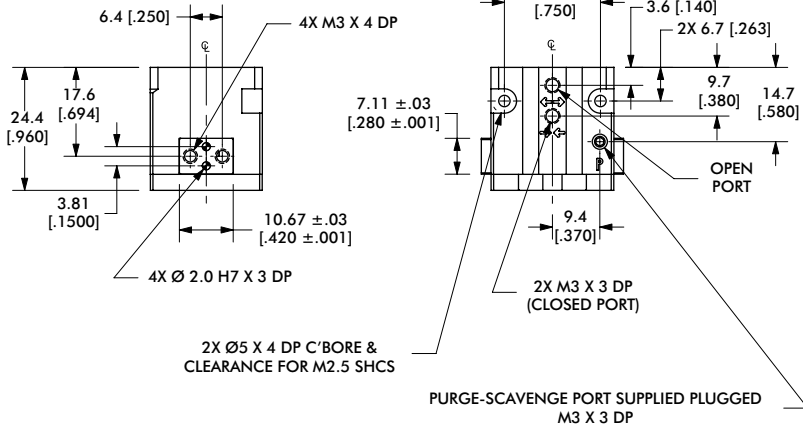
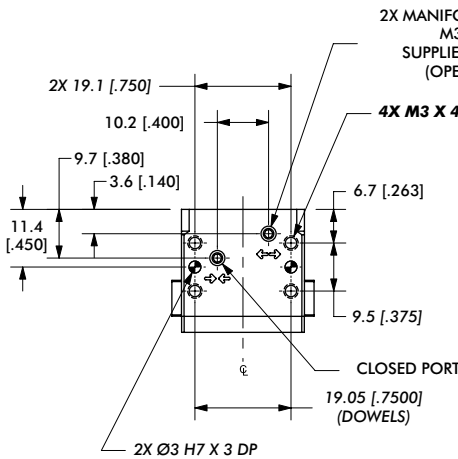
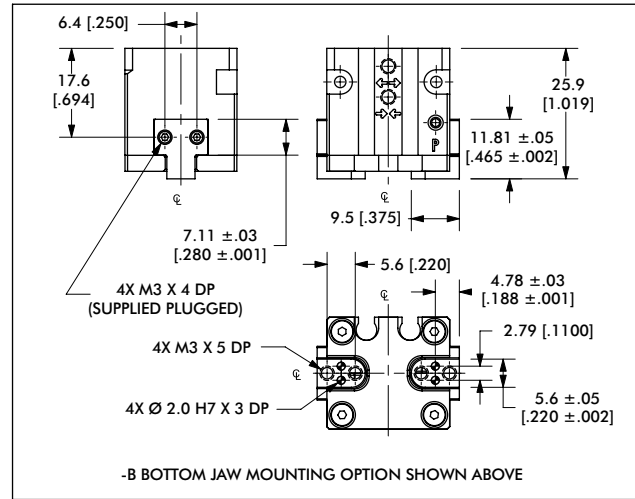
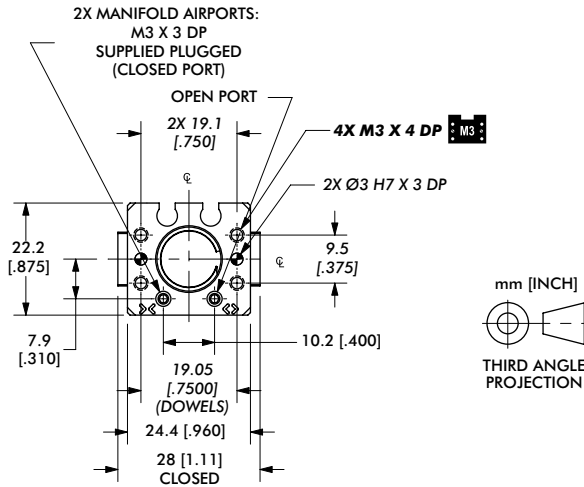
Specifications	Units	047M	056M	088M
Total Rated Grip Force <b>F</b> @ 100 psi	N [lbs]	62 [14]	98 [22]	222 [50]
Total Stroke	mm [in]	3.2 [0.13]	4.8 [0.19]	6.4 [0.25]
Weight	kg [lbs]	0.086 [0.04]	0.155 [0.07]	0.23 [0.51]
Pressure Range	bar [psi]	1.5-7 [20-100]		
Max. Vacuum for Scavenge Port	mm Hg [in. Hg]	200 [8]		
Max. Pressure for Purge Port	bar [psi]	1.4 [20]		
Ingress Protection Class (IP)		IP54		
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	0.2 [0.013]	0.5 [0.028]	1.5 [0.090]
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]		
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]		
Actuation	sec	0.13	0.16	0.20
Accuracy	mm [in]	±0.05 [±0.002]		
Repeatability	mm [in]	±0.03 [±0.001]		
Valve to Actuate Double Acting		4-way, 2-position		

Specifications	Units	125M	175M	250M
Total Rated Grip Force <b>F</b> @ 100 psi	N [lbs]	445 [100]	890 [200]	1779 [400]
Total Stroke	mm [in]	9.5 [0.38]	12.7 [0.50]	19.1 [0.75]
Weight	kg [lbs]	0.46 [1.03]	1.68 [3.70]	2.76 [6.08]
Pressure Range	bar [psi]	1.5-7 [20-100]		
Max. Vacuum for Scavenge Port	mm Hg [in. Hg]	200 [8]		
Max. Pressure for Purge Port	bar [psi]	1.4 [20]		
Ingress Protection Class (IP)		IP54		
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	4.5 [0.274]	11.7 [0.717]	36.0 [2.194]
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]		
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]		
Actuation	sec	0.30	0.40	0.50
Accuracy	mm [in]	±0.08 [±0.003]		
Repeatability	mm [in]	±0.03 [±0.001]		
Valve to Actuate Double Acting		4-way, 2-position		

# DPDS-047M, 047M-B

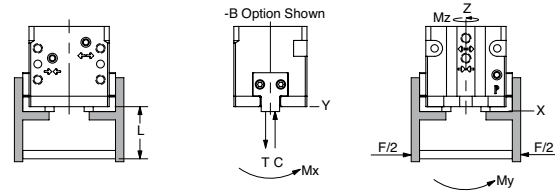
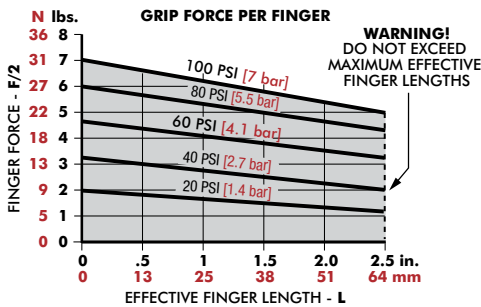


## 2-Jaw General Industrial Grippers | Dimensions and Technical Specifications



Seal Repair Kits	047M
Buna-N Seal Repair Kit	SLKT-185
Viton® Seal Repair Kit	SLKT-185V
Manifold Seal Kit (Viton® only)	SLKT-197V

## Loading Information



DPDS-047M	Static	Dynamic
Maximum Tensile <b>T</b>	134 N [30 lbs]	27 N [6 lbs]
Maximum Compressive <b>C</b>	223 N [50 lbs]	45 N [10 lbs]
Maximum Moment <b>M<sub>x</sub></b>	2 Nm [20 in-lbs]	0.6 Nm [5 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	2 Nm [20 in-lbs]	0.6 Nm [5 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	2 Nm [20 in-lbs]	0.6 Nm [5 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

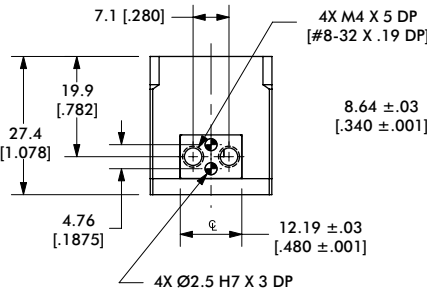
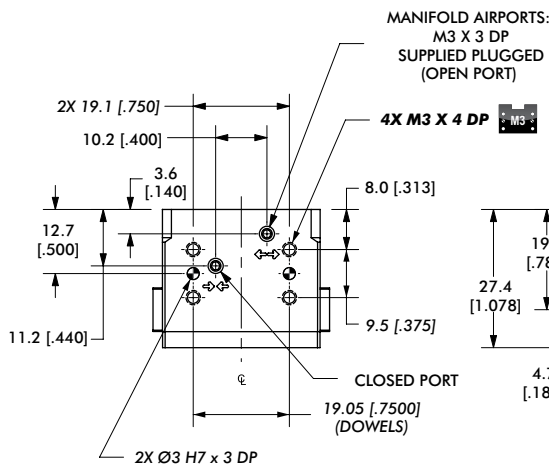
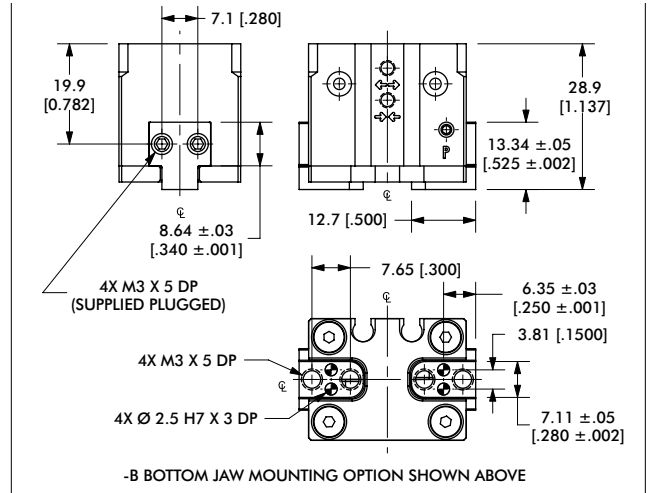
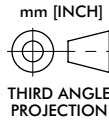
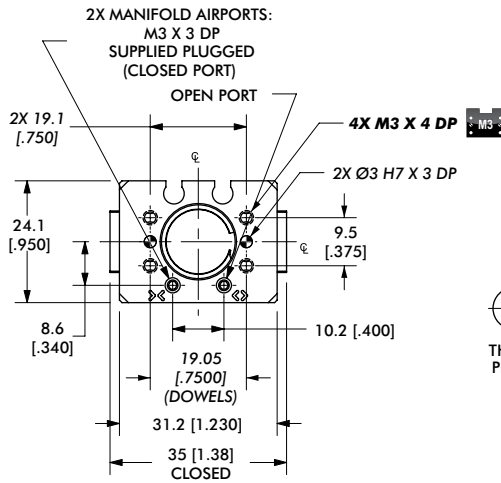
DPDS-047M-B	Static	Dynamic
Maximum Tensile <b>T</b>	107 N [24 lbs]	22 N [5 lbs]
Maximum Compressive <b>C</b>	178 N [40 lbs]	36 N [8 lbs]
Maximum Moment <b>M<sub>x</sub></b>	2 Nm [16 in-lbs]	0.5 Nm [4 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	2 Nm [16 in-lbs]	0.5 Nm [4 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	2 Nm [16 in-lbs]	0.5 Nm [4 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

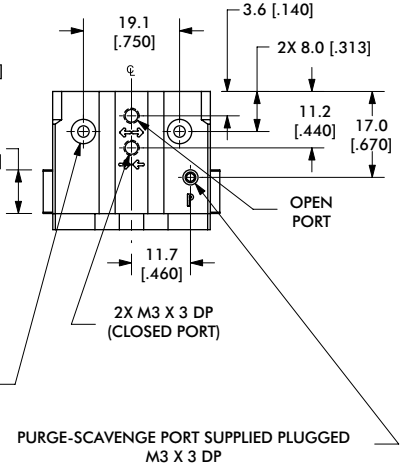


# DPDS-056M, 056M-B

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

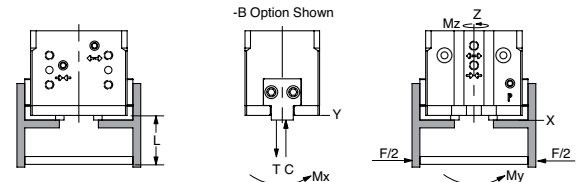
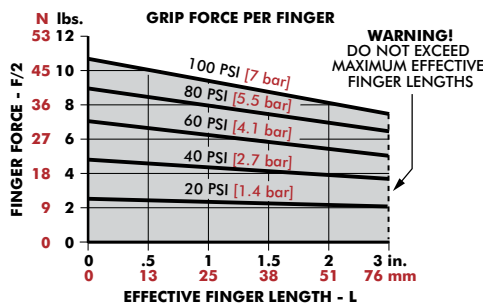


2X Ø5 X 3 DP C'BORE & CLEARANCE FOR M2.5 SHCS



Seal Repair Kits	056M
Buna-N Seal Repair Kit	SLKT-186
Viton® Seal Repair Kit	SLKT-186V
Manifold Seal Kit (Viton® only)	SLKT-197V

## Loading Information



DPDS-056M	Static	Dynamic
Maximum Tensile <b>T</b>	267 N [60 lbs]	45 N [10 lbs]
Maximum Compressive <b>C</b>	401 N [90 lbs]	67 N [15 lbs]
Maximum Moment <b>M<sub>x</sub></b>	5 Nm [40 in-lbs]	0.8 Nm [7 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	5 Nm [40 in-lbs]	0.8 Nm [7 in-lbs]
Maximum Moment <b>M<sub>x</sub></b>	5 Nm [40 in-lbs]	0.8 Nm [7 in-lbs]

†Capacities are per set of jaws and are not simultaneous

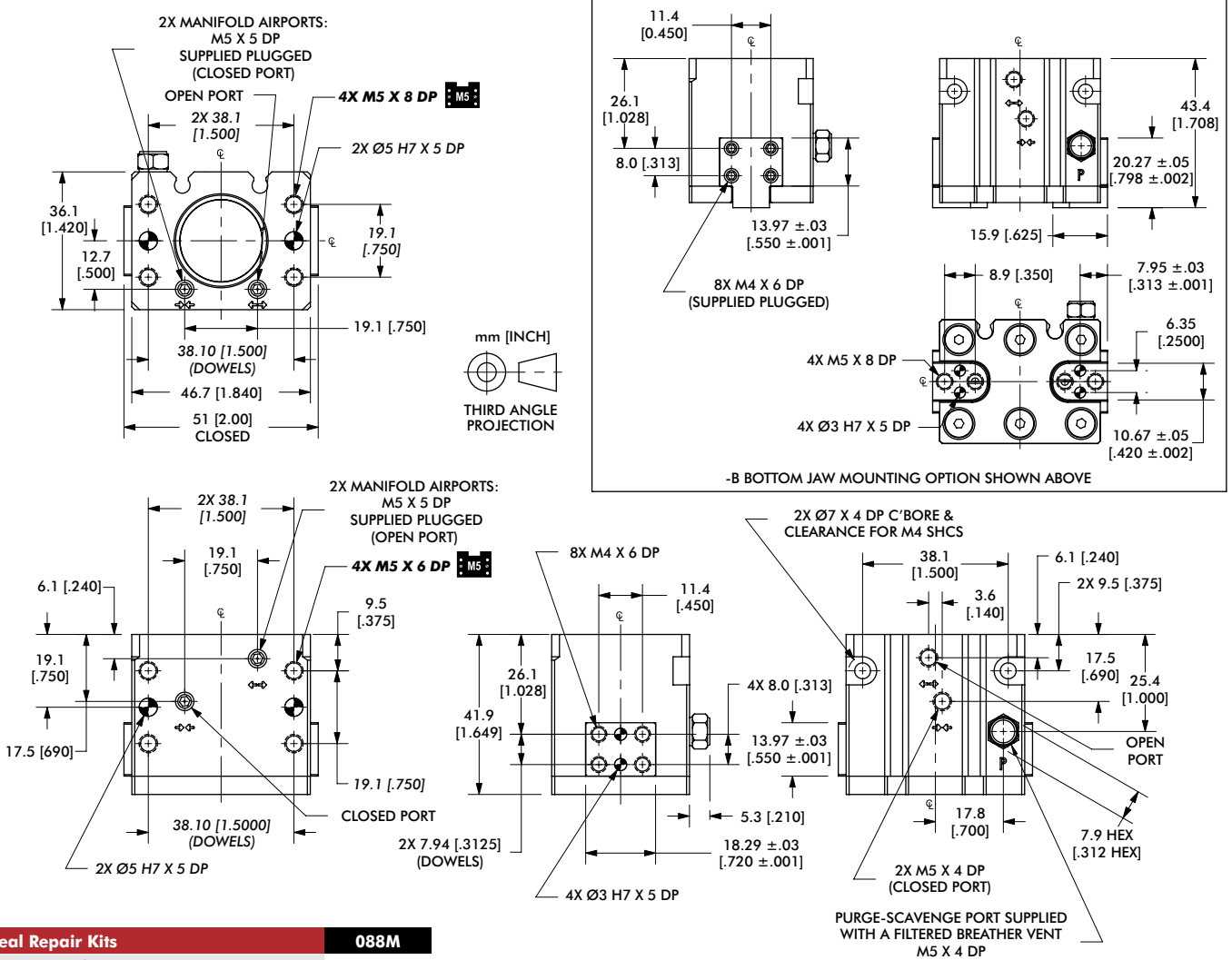
DPDS-056M-B	Static	Dynamic
Maximum Tensile <b>T</b>	214 N [48 lbs]	36 N [8 lbs]
Maximum Compressive <b>C</b>	320 N [72 lbs]	53 N [12 lbs]
Maximum Moment <b>M<sub>x</sub></b>	4 Nm [32 in-lbs]	1 Nm [6 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	4 Nm [32 in-lbs]	1 Nm [6 in-lbs]
Maximum Moment <b>M<sub>x</sub></b>	4 Nm [32 in-lbs]	1 Nm [6 in-lbs]

†Capacities are per set of jaws and are not simultaneous

# DPDS-088M, 088M-B

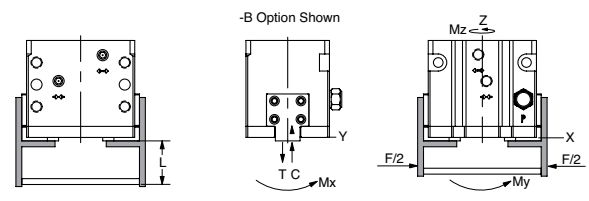
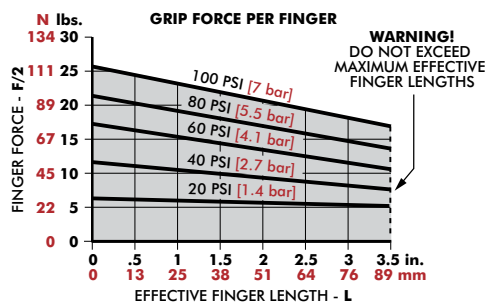


## 2-Jaw General Industrial Grippers | Dimensions and Technical Specifications



Seal Repair Kits	088M
Buna-N Seal Repair Kit	SLKT-187
Viton® Seal Repair Kit	SLKT-187V
Manifold Seal Kit (Viton® only)	SLKT-199V

### Loading Information



DPDS-088M	Static	Dynamic
Maximum Tensile <b>T</b>	614 N [138 lbs]	111 N [25 lbs]
Maximum Compressive <b>C</b>	1224 N [275 lbs]	111 N [25 lbs]
Maximum Moment <b>M<sub>x</sub></b>	14 Nm [120 in-lbs]	2 Nm [20 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	14 Nm [120 in-lbs]	2 Nm [20 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	14 Nm [120 in-lbs]	2 Nm [20 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

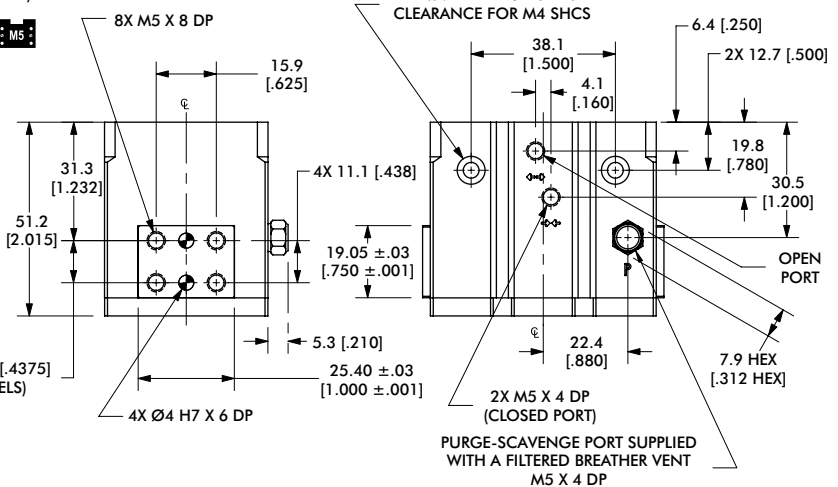
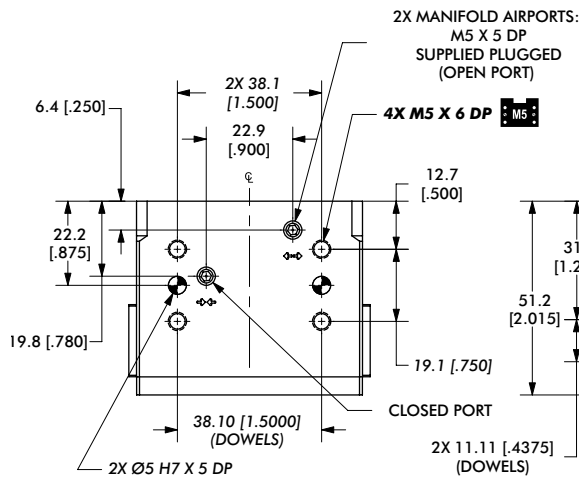
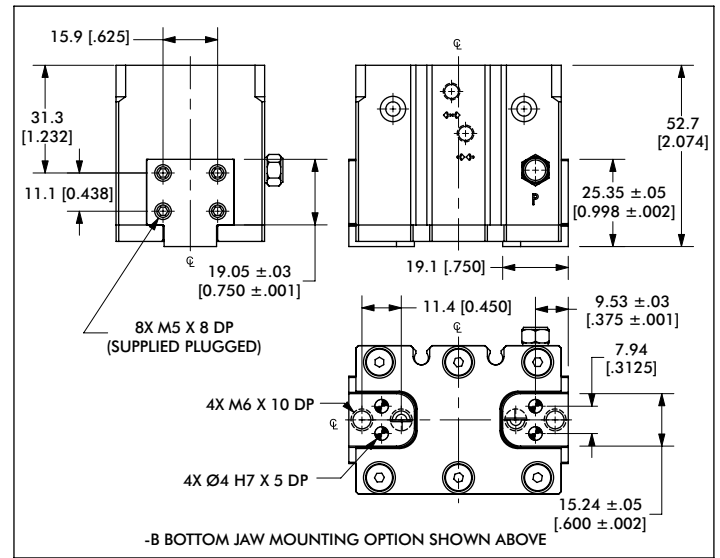
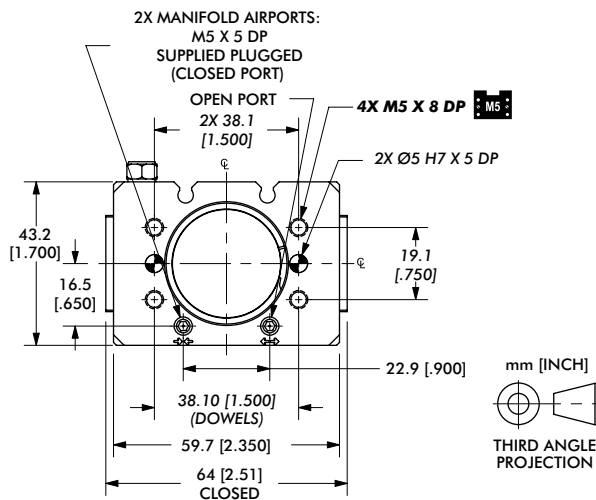
DPDS-088M-B	Static	Dynamic
Maximum Tensile <b>T</b>	490 N [110 lbs]	89 N [20 lbs]
Maximum Compressive <b>C</b>	979 N [220 lbs]	89 N [20 lbs]
Maximum Moment <b>M<sub>x</sub></b>	11 Nm [96 in-lbs]	2 Nm [16 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	11 Nm [96 in-lbs]	2 Nm [16 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	11 Nm [96 in-lbs]	2 Nm [16 in-lbs]

\*Capacities are per set of jaws and are not simultaneous



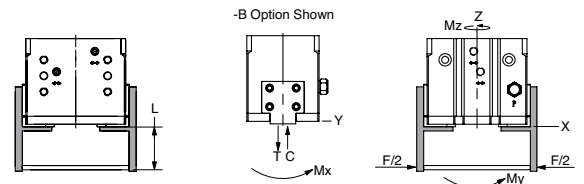
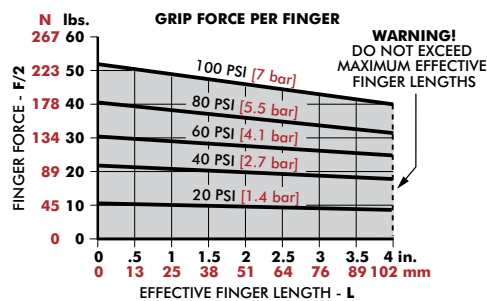
# DPDS-125M, 125M-B

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



Seal Repair Kits	056M
Buna-N Seal Repair Kit	SLKT-188
Viton® Seal Repair Kit	SLKT-188V
Manifold Seal Kit (Viton® only)	SLKT-199V

### Loading Information



DPDS-125M	Static	Dynamic
Maximum Tensile <b>T</b>	2225 N [500 lbs]	289 N [65 lbs]
Maximum Compressive <b>C</b>	4228 N [950 lbs]	289 N [65 lbs]
Maximum Moment <b>M<sub>x</sub></b>	48 Nm [425 in-lbs]	8 Nm [70 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	48 Nm [425 in-lbs]	8 Nm [70 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	48 Nm [425 in-lbs]	8 Nm [70 in-lbs]

†Capacities are per set of jaws and are not simultaneous

DPDS-125M-B	Static	Dynamic
Maximum Tensile <b>T</b>	1780 N [400 lbs]	231 N [52 lbs]
Maximum Compressive <b>C</b>	3382 N [760 lbs]	231 N [52 lbs]
Maximum Moment <b>M<sub>x</sub></b>	8 Nm [340 in-lbs]	6 Nm [56 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	38 Nm [340 in-lbs]	6 Nm [56 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	38 Nm [340 in-lbs]	6 Nm [56 in-lbs]

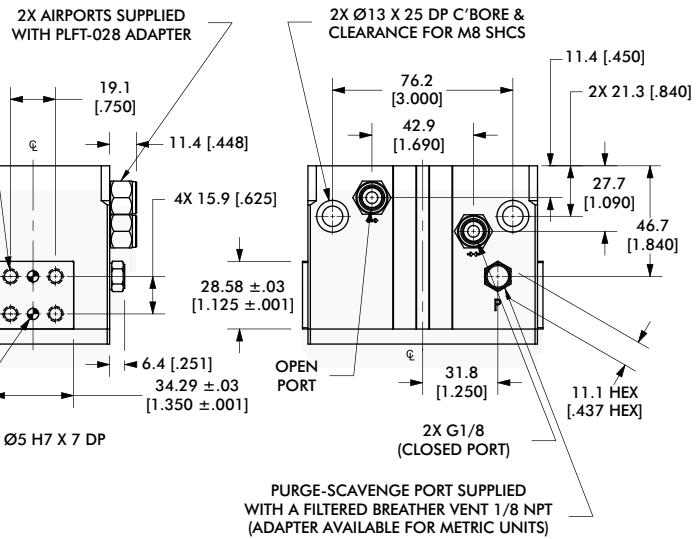
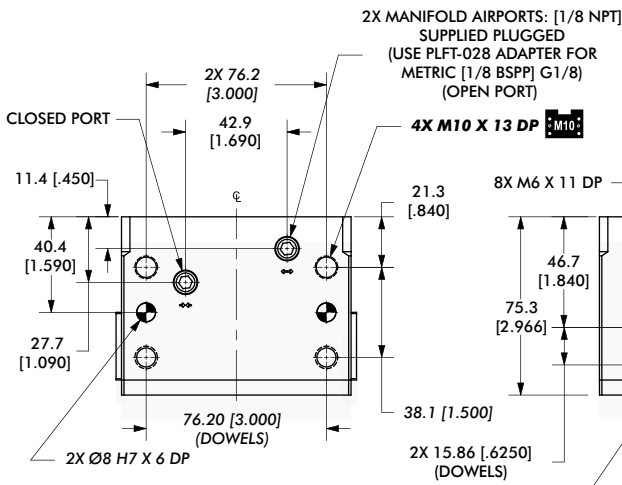
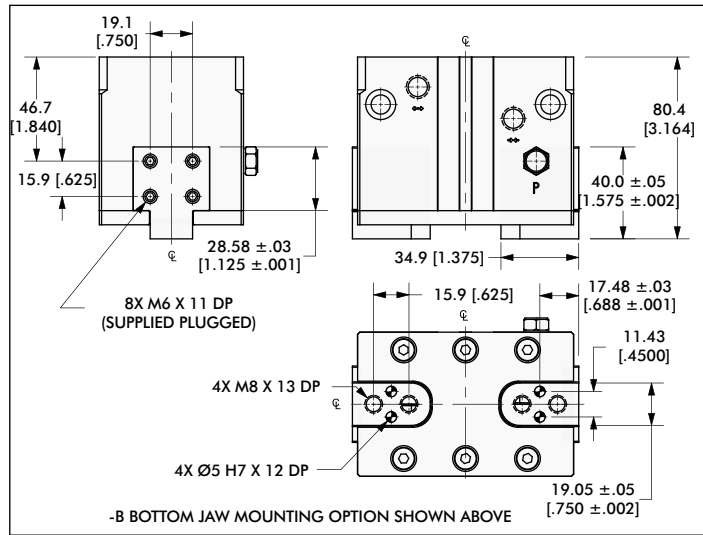
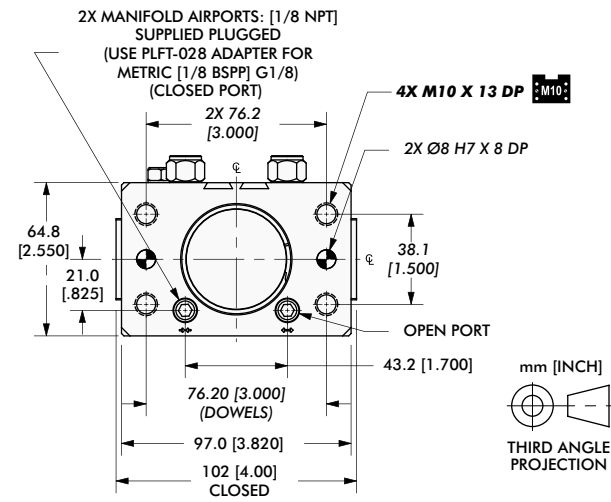
†Capacities are per set of jaws and are not simultaneous



# DPDS-175M, 175M-B

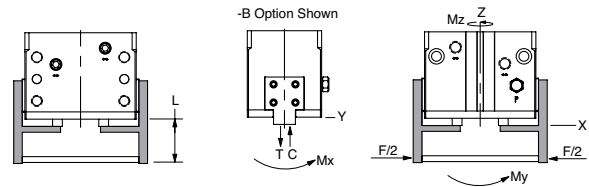
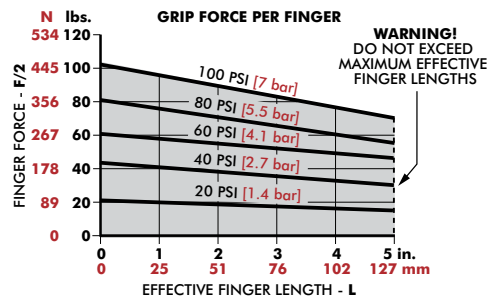


## 2-Jaw General Industrial Grippers | Dimensions and Technical Specifications



Seal Repair Kits	175M
Buna-N Seal Repair Kit	SLKT-189
Viton® Seal Repair Kit	SLKT-189V
Manifold Seal Kit (Viton® only)	SLKT-201V

### Loading Information



DPDS-175M	Static	Dynamic
Maximum Tensile <b>T</b>	4450 N [1000 lbs]	668 N [150 lbs]
Maximum Compressive <b>C</b>	8900 N [2000 lbs]	668 N [150 lbs]
Maximum Moment <b>M<sub>x</sub></b>	113 Nm [1000 in-lbs]	20 Nm [175 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	113 Nm [1000 in-lbs]	20 Nm [175 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	113 Nm [1000 in-lbs]	20 Nm [175 in-lbs]

<sup>†</sup>Capacities are per set of jaws and are not simultaneous

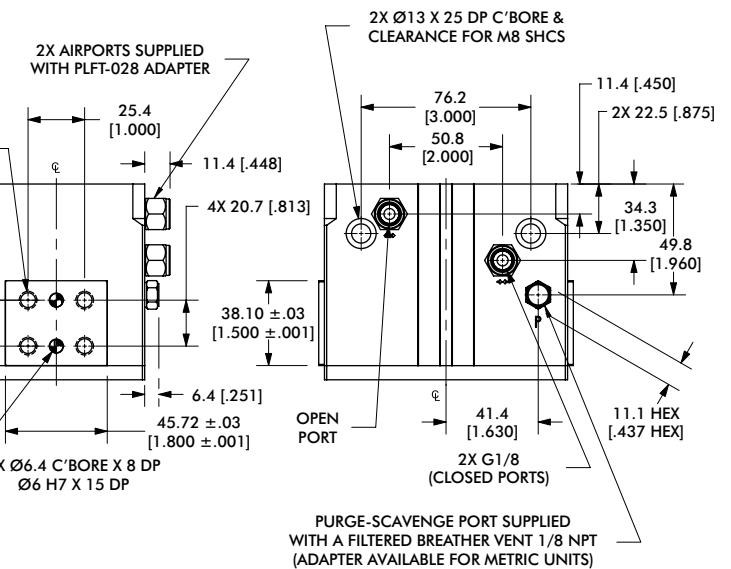
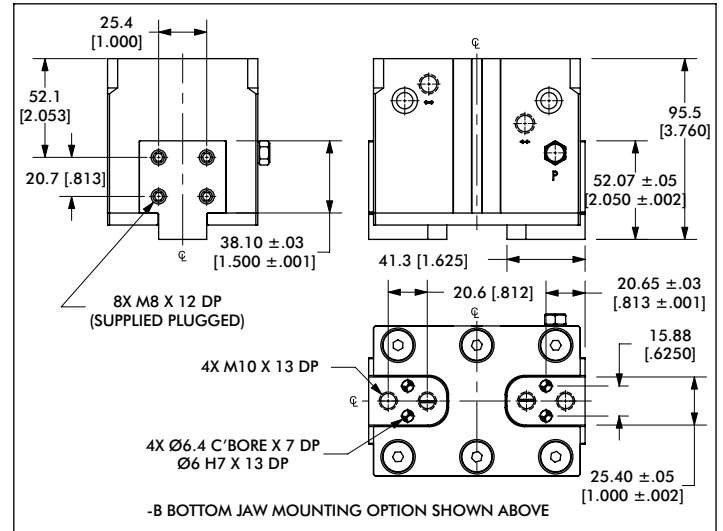
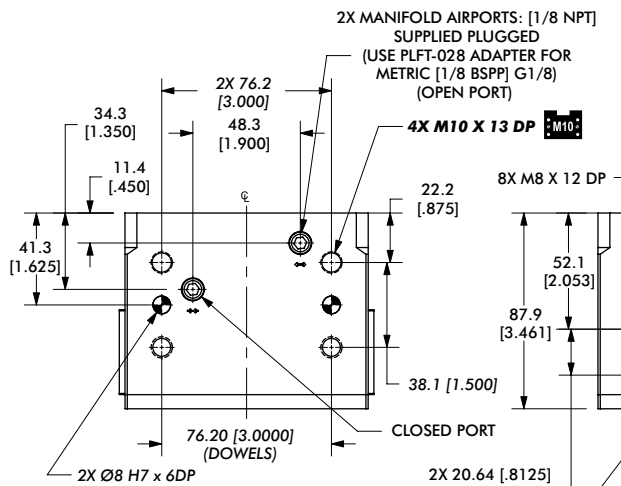
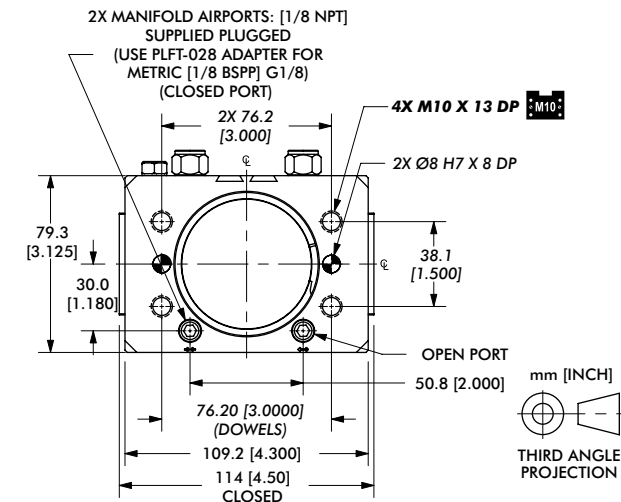
DPDS-175M-B	Static	Dynamic
Maximum Tensile <b>T</b>	3560 N [800 lbs]	534 N [120 lbs]
Maximum Compressive <b>C</b>	7120 N [1600 lbs]	534 N [120 lbs]
Maximum Moment <b>M<sub>x</sub></b>	90 Nm [800 in-lbs]	16 Nm [140 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	90 Nm [800 in-lbs]	16 Nm [140 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	90 Nm [800 in-lbs]	16 Nm [140 in-lbs]

<sup>†</sup>Capacities are per set of jaws and are not simultaneous



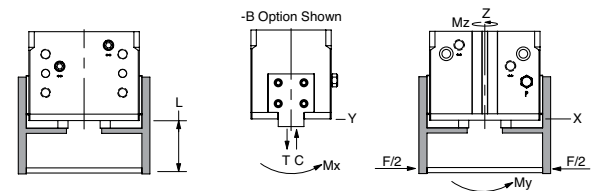
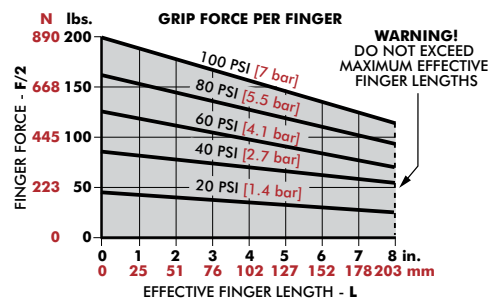
# DPDS-250M, 250M-B

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



Seal Repair Kits	250M
Buna-N Seal Repair Kit	SLKT-190
Viton® Seal Repair Kit	SLKT-190V
Manifold Seal Kit (Viton® only)	SLKT-201V

### Loading Information



DPDS-250M	Static	Dynamic
Maximum Tensile <b>T</b>	5785 N [1300 lbs]	979 N [220 lbs]
Maximum Compressive <b>C</b>	12015 N [2700 lbs]	979 N [220 lbs]
Maximum Moment <b>M<sub>x</sub></b>	153 Nm [1350 in-lbs]	25 Nm [225 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	153 Nm [1350 in-lbs]	25 Nm [225 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	153 Nm [1350 in-lbs]	25 Nm [225 in-lbs]

<sup>1</sup>Capacities are per set of jaws and are not simultaneous

DPDS-250M-B	Static	Dynamic
Maximum Tensile <b>T</b>	4628 N [1040 lbs]	783 N [176 lbs]
Maximum Compressive <b>C</b>	9612 N [2160 lbs]	783 N [176 lbs]
Maximum Moment <b>M<sub>x</sub></b>	122 Nm [1080 in-lbs]	20 Nm [180 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	122 Nm [1080 in-lbs]	20 Nm [180 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	122 Nm [1080 in-lbs]	20 Nm [180 in-lbs]

<sup>1</sup>Capacities are per set of jaws and are not simultaneous