

Parallel Grippers - 2-Jaw Parallel Series

Machine applications:

The 2 symmetric jaws and excellent repeatability allow for precise handling of various parts.

Harsh environments:

Shielded design repels chips and other particulate from internal drive mechanism.

Compact, robust and powerful gripper:

This gripper is designed for use in confined spaces, combining long strokes with a high grip force. Optional safety springs retain the components, should the air supply fail or to increase grip force.

Different strokes:

All gripper sizes are available in 2 strokes sizes.

For long fingers applications:

The large surface area of the jaws, coupled with the encapsulated bottom case design allows for long fingers applications.

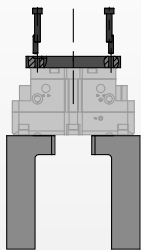
Multi-purpose gripper:

A wide range of options and accessories (extended stroke, safety springs for internal or external gripping, magneto resistive or inductive sensors) allow these grippers to be used in a wide number of applications.

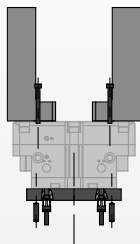
Mounting Information:

Grippers can be mounted & operated in any orientation

Gripper is located using 2 dowel pins and assembled from the top with 4 screws.

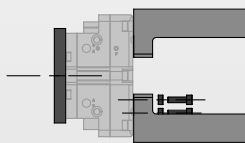


Gripper can also be assembled from the bottom with 4 through body screws.



Gripper is protected from debris when operated upside down.

Gripper can be operated utilizing top manifold air ports



Fingers are located on jaws with 2 dowel sleeves (provided) and assembled with 2 screws.

Technical Specifications:

Pneumatic Specifications

Pressure Operating Range
without Springs
Cylinder Type

Imperial

30-100 psi

Metric

2-7 bar

Double Acting
or Double Acting Spring Assist
or Single Acting Spring Return
Internally Lubricated Buna-N

Dynamic Seals

Valve Required to Operate:

Double Acting

Single Acting (-C or -O Option)

4-way, 2-position

3-way, 2-position

Air Quality Requirements

Air Filtration

Air Lubrication

Air Humidity

40 Micron or Better

Not Necessary*

Low Moisture Content (dry)

Temperature Operating Range

Buna-N Seals (Standard)

Viton® Seals (Optional)

-30°~180° F

-20°~300° F

-35°~80° C

-30°~150° C

Maintenance Specifications†

Expected Life

Normal Application

w/ Preventative Maintenance

Field Repairable

Seal Repair Kits Available

5 million cycles

10+ million cycles*

Yes

Yes

*Addition of lubrication will greatly increase service life
† See Maintenance Section

Product Features

Viton® Seals (-V) Option

Optional Viton® seals for high temperatures (-20°F to +300°F / -30°~150° C)

Finger Locating Sleeves

For precise finger mounting (standard)

Jaw Components

Hardened and precision ground steel for minimum jaw play with hard plating for wear resistance and long life

Multiple Air Ports

Side or top air ports (top ports require O-ring)

Standard and Extended Stroke (-L)

Each model of gripper is available in two stroke lengths

Multiple Mounting Locations

Gripper can be mounted from the top or bottom

Shielded Design

Gripper body is shielded to repel chips and other particulate from internal drive mechanism

Multiple Sensing Capabilities

Up to 4 magneto resistive sensors (magnets built-in). Inductive sensors available [except -1M]

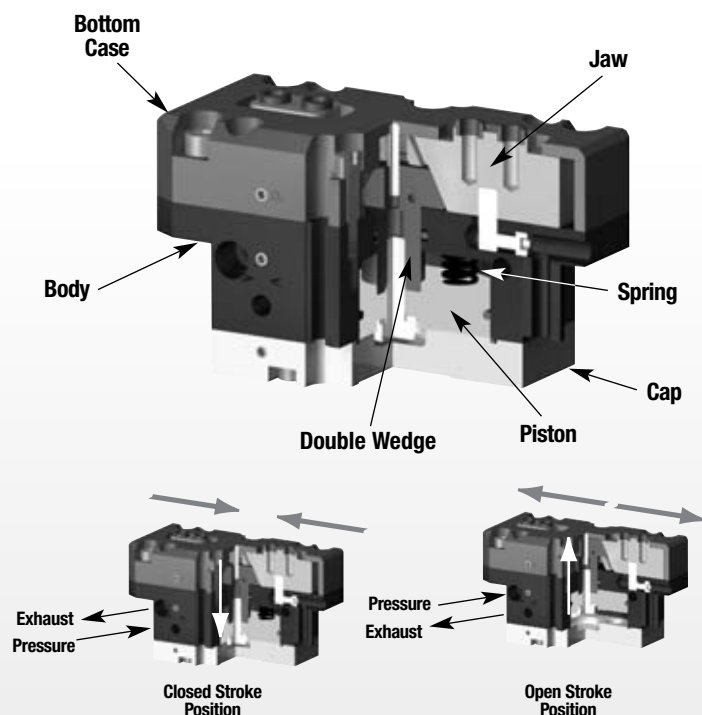
Standard Purge/Scavenge Port

Used with a vacuum for clean room environments or positive pressure for harsh environments

Optional Spring Assist

Optional spring assist retains the component should the air supply fail, to assist the gripper for internal (-O) or external (-C) gripping, or in single acting or spring assist mode

Operating Principle



- A double acting piston is connected to a double sided wedge.
- The double wedge slides into a slot in each of the jaws converting the vertical motion of the wedge into a horizontal motion of the jaws.
- Each jaw moves within the bottom case, the closed design increases the rigidity and permits the use of longer fingers. The large surface area of the guiding system allows for higher moments loads.
- This gripper is suitable for internal or external gripping using single or double acting mode.

Style -RDH Parallel Gripper

Size -1M

	RDH-1M	RDH-1M-L
Total Stroke:	0.16 in. 4 mm	0.31 in. 8 mm
Grip Force:	156 lbs 693 N	102 lbs 452 N
Weight:	0.4 lbs 0.19 Kg	0.4 lbs 0.19 Kg

See Page **1.22**

Style -RDH Parallel Gripper

Size -2M

	RDH-2M	RDH-2M-L
Total Stroke:	0.23 in. 6 mm	0.47 in. 12 mm
Grip Force:	226 lbs 1006 N	149 lbs 661 N
Weight:	0.9 lbs 0.39 Kg	0.9 lbs 0.39 Kg

See Page **1.24**

Style -RDH Parallel Gripper

Size -3M

	RDH-3M	RDH-3M-L
Total Stroke:	0.31 in. 8 mm	0.62 in. 16 mm
Grip Force:	379 lbs 1683 N	246 lbs 1094 N
Weight:	1.8 lbs 0.82 Kg	1.8 lbs 0.82 Kg

See Page **1.26**

Style -RDH Parallel Gripper

Size -4M

	RDH-4M	RDH-4M-L
Total Stroke:	0.39 in. 10 mm	0.78 in. 20 mm
Grip Force:	628 lbs 2789 N	408 lbs 1814 N
Weight:	3.1 lbs 1.43 Kg	3.1 lbs 1.43 Kg

See Page **1.28**

Style -RDH Parallel Gripper

Size -5M

	RDH-5M	RDH-5M-L
Total Stroke:	0.51 in. 13 mm	1.01 in. 26 mm
Grip Force:	1037 lbs 4609 N	675 lbs 2999 N
Weight:	6.1 lbs 2.75 Kg	6.1 lbs 2.75 Kg

See Page **1.30**

Style -RDH Parallel Gripper

Size -6M

	RDH-6M	RDH-6M-L
Total Stroke:	0.62 in. 16 mm	1.25 in. 32 mm
Grip Force:	1944 lbs 8640 N	1265 lbs 5623 N
Weight:	12.7 lbs 5.77 Kg	12.7 lbs 5.77 Kg

See Page **1.32**

Style -RDH Parallel Gripper

Size -7M

	RDH-7M	RDH-7M-L
Total Stroke:	0.98 in. 25 mm	1.95 in. 50 mm
Grip Force:	2822 lbs 12542 N	1830 lbs 8135 N
Weight:	24.8 lbs 11.25 Kg	24.8 lbs 11.25 Kg

See Page **1.34**

Style -RDH Parallel Gripper

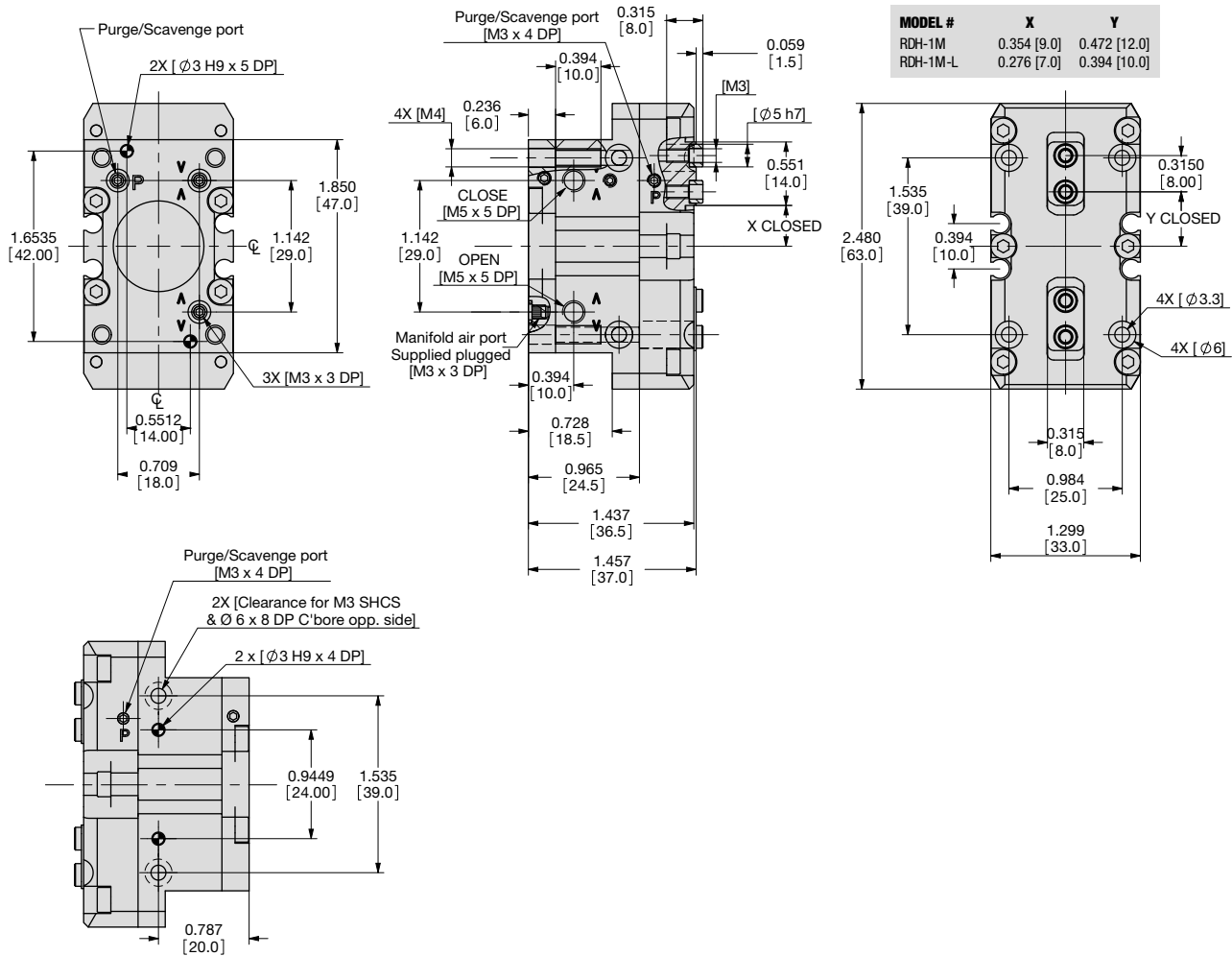
Size -8M

	RDH-8M	RDH-8M-L
Total Stroke:	1.37 in. 35 mm	2.73 in. 70 mm
Grip Force:	6300 lbs 28002 N	4076 lbs 18115 N
Weight:	71.1 lbs 32.3 Kg	71.1 lbs 32.3 Kg

See Page **1.36**

PARALLEL GRIPPER RDH-1M

2-JAW PARALLEL SERIES



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-1M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 1

METRIC M

EXTENDED STROKE L 0.16" [4mm] Leave Blank (standard)
0.32" [8mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

PNP Magneto Resistive Sensor Short Barrel w/Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

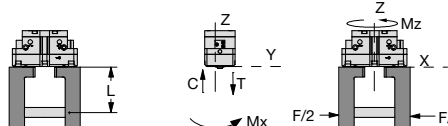
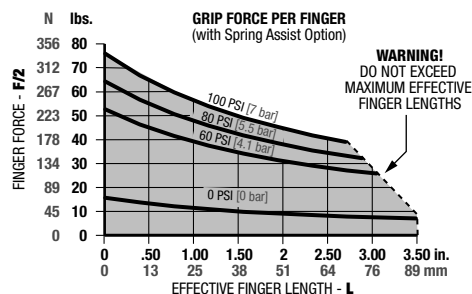
Buna-N Seal Repair Kit	SLKT-416	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-363	1
Viton® Seal Repair Kit	SLKT-416V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-363V	1
M5 Adjustable Flow Control	VLVF-008	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-1M-L-C-V

Ex: RDH-1M Parallel Gripper, Metric, 8mm Extended Stroke, Spring Closed, Viton® Seals

RDH-1M Loading Information

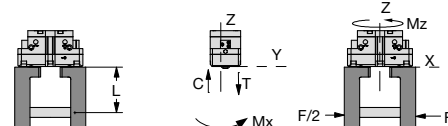
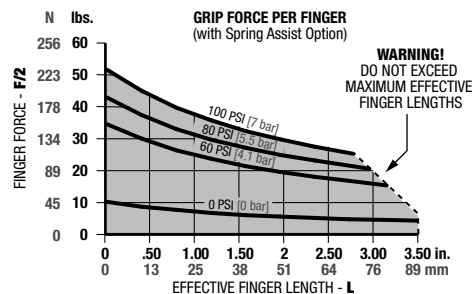


Loading Capacity[†]

	Static	Dynamic
Maximum Tensile T	134 lbs. [594 N]	17 lbs. [74 N]
Maximum Compressive C	175 lbs. [779 N]	17 lbs. [74 N]
Maximum Moment M_x	159 in.-lbs. [18 Nm]	18 in.-lbs. [2 Nm]
Maximum Moment M_y	204 in.-lbs. [23 Nm]	18 in.-lbs. [2 Nm]
Maximum Moment M_z	124 in.-lbs. [14 Nm]	18 in.-lbs. [2 Nm]

[†]Capacities are per set of jaws and are not simultaneous

RDH-1M-L Loading Information



Loading Capacity[†]

	Static	Dynamic
Maximum Tensile T	121 lbs. [540 N]	11 lbs. [48 N]
Maximum Compressive C	159 lbs. [708 N]	11 lbs. [48 N]
Maximum Moment M_x	142 in.-lbs. [16 Nm]	9 in.-lbs. [1 Nm]
Maximum Moment M_y	168 in.-lbs. [19 Nm]	9 in.-lbs. [1 Nm]
Maximum Moment M_z	106 in.-lbs. [12 Nm]	9 in.-lbs. [1 Nm]

[†]Capacities are per set of jaws and are not simultaneous

Specifications

Total Rated Grip Force, **F** @ 100 psi [7 bar]:

Without Spring Assist	125 lbs.	555 N
Without Spring Assist -L	81 lbs.	361 N
With Spring Assist	156 lbs.	693 N
With Spring Assist -L	102 lbs.	452 N

Total Stroke:

Standard	0.16 in.	4 mm
Extended -L	0.32 in.	8 mm

Weight (RDH) 0.4/0.5 lbs. 0.19/0.21 Kg

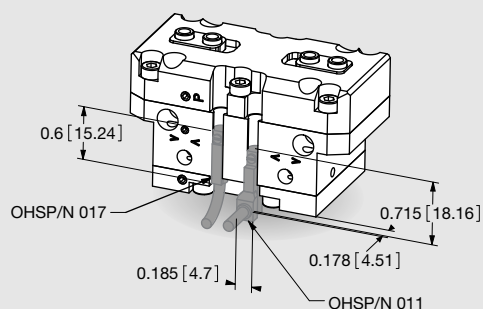
Pressure Range without Spring 30-100 psi 2-7 Bar

Pressure Range with Spring 50-100 psi 3.5-7 Bar

Specifications (cont.)

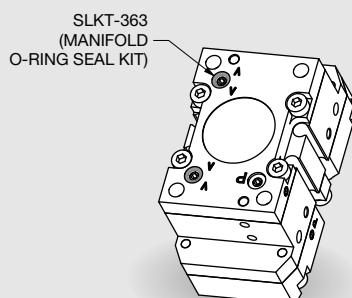
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	0.9 in ²	5.8 cm ²
Displacement	0.31 in ³	5 cm ³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.06 sec./0.06 sec.	
Accuracy	±0.0016 in.	±0.04 mm
Repeatability	±0.001 in.	±0.02 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



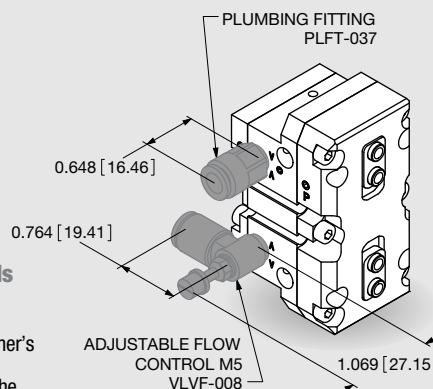
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-363V)

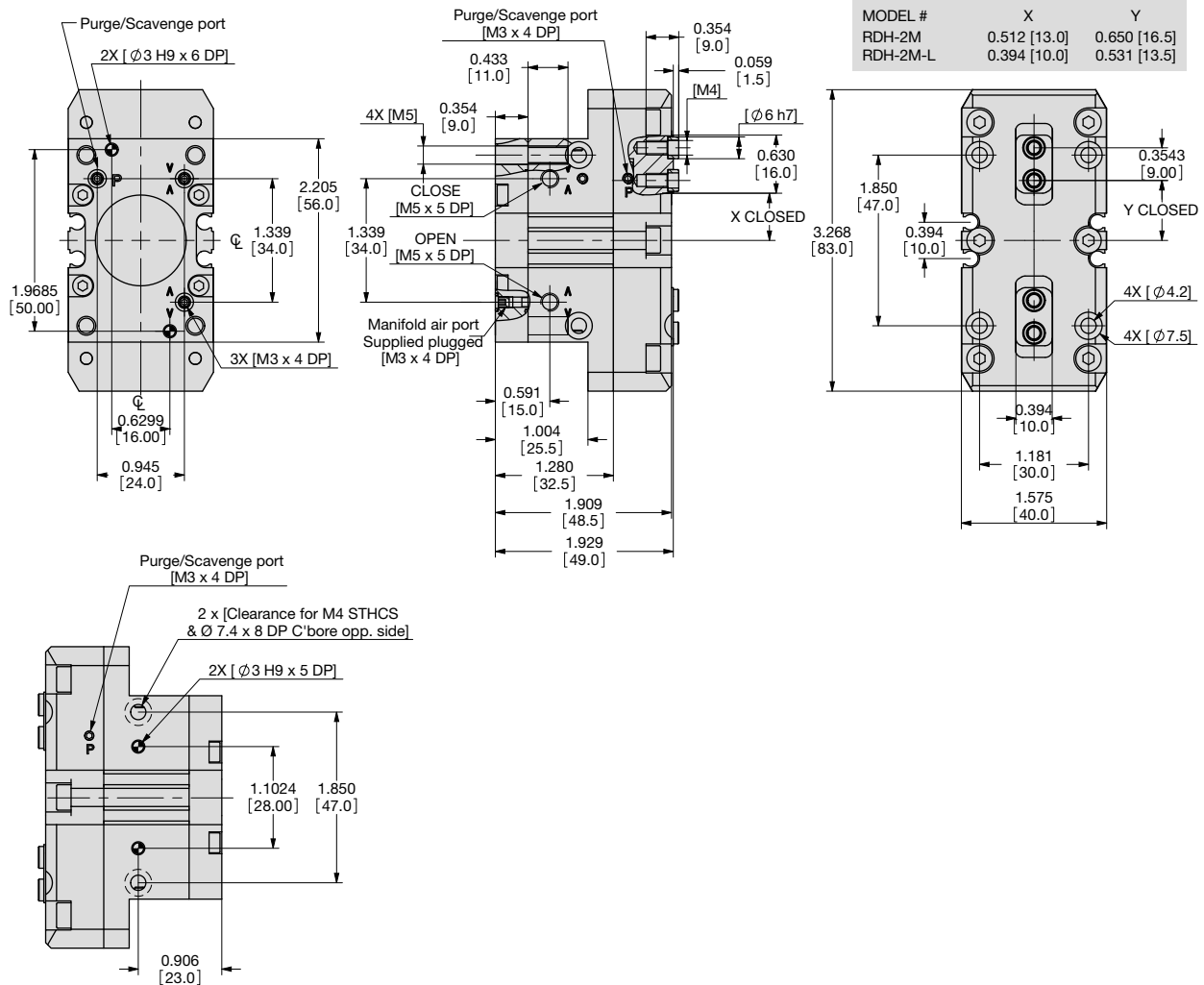


Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-2M

2-JAW PARALLEL SERIES



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
				0.00 = ±.01	[0.] = [±.25]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]	Metric Threads Course Pitch	0.000 = ±.005	[0.0] = [±.13]
				0.0000 = ±.0005	[0.00] = [±.013]

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-2M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 2

METRIC M

EXTENDED STROKE L 0.24" [6mm] Leave Blank (standard)

0.47" [12mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

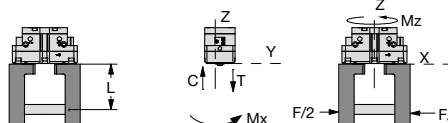
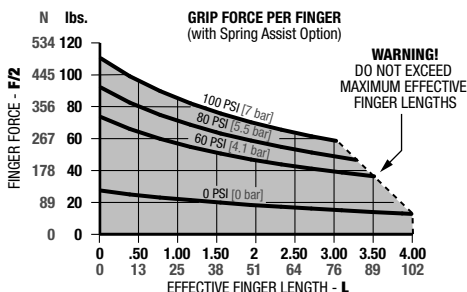
Buna-N Seal Repair Kit	SLKT-417	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-363	1
Viton® Seal Repair Kit	SLKT-417V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-363V	1
M5 Adjustable Flow Control	VLVF-008	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-2M-L-C-V

Ex: RDH-2M Parallel Gripper, Metric, 12mm Extended Stroke, Spring Closed, Viton® Seals

RDH-2M Loading Information

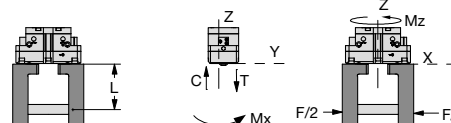
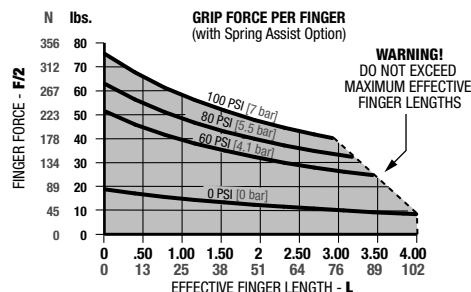


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	191 lbs. [849 N]	18 lbs. [81 N]
Maximum Compressive C	248 lbs. [1103 N]	18 lbs. [81 N]
Maximum Moment Mx	319 in.-lbs. [36 Nm]	27 in.-lbs. [3 Nm]
Maximum Moment My	451 in.-lbs. [51 Nm]	35 in.-lbs. [4 Nm]
Maximum Moment Mx	283 in.-lbs. [32 Nm]	35 in.-lbs. [4 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-2M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	172 lbs. [764 N]	12 lbs. [53 N]
Maximum Compressive C	223 lbs. [993 N]	12 lbs. [53 N]
Maximum Moment Mx	283 in.-lbs. [32 Nm]	18 in.-lbs. [2 Nm]
Maximum Moment My	363 in.-lbs. [41 Nm]	18 in.-lbs. [2 Nm]
Maximum Moment Mx	230 in.-lbs. [26 Nm]	18 in.-lbs. [2 Nm]

†Capacities are per set of jaws and are not simultaneous

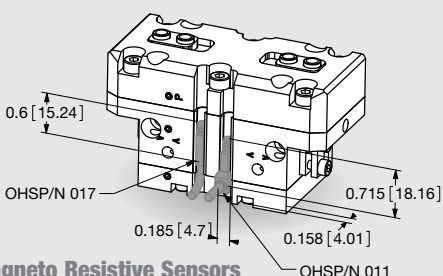
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	170 lbs.	754 N
Without Spring Assist -L	111 lbs.	494 N
With Spring Assist	226 lbs.	1006 N
With Spring Assist -L	149 lbs.	661 N
Total Stroke:		
Standard	0.24 in.	6 mm
Extended -L	0.47 in.	12 mm
Weight (RDH)	0.86/0.93 lbs.	0.39/0.42 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	65-100 psi	4.5-7 Bar

Specifications (cont.)

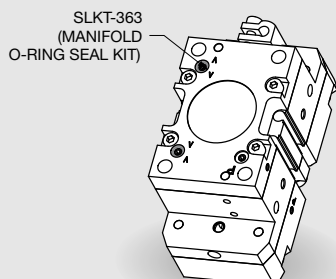
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	1.24 in²	8 cm²
Displacement	0.63 in³	10.3 cm³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.07 sec./0.07 sec.	
Accuracy	±0.0016 in.	±0.04 mm
Repeatability	±0.001 in.	±0.02 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



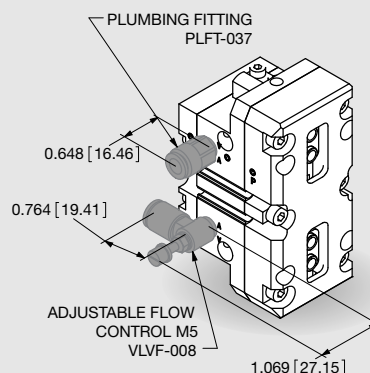
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



Manifold O-Ring Seals

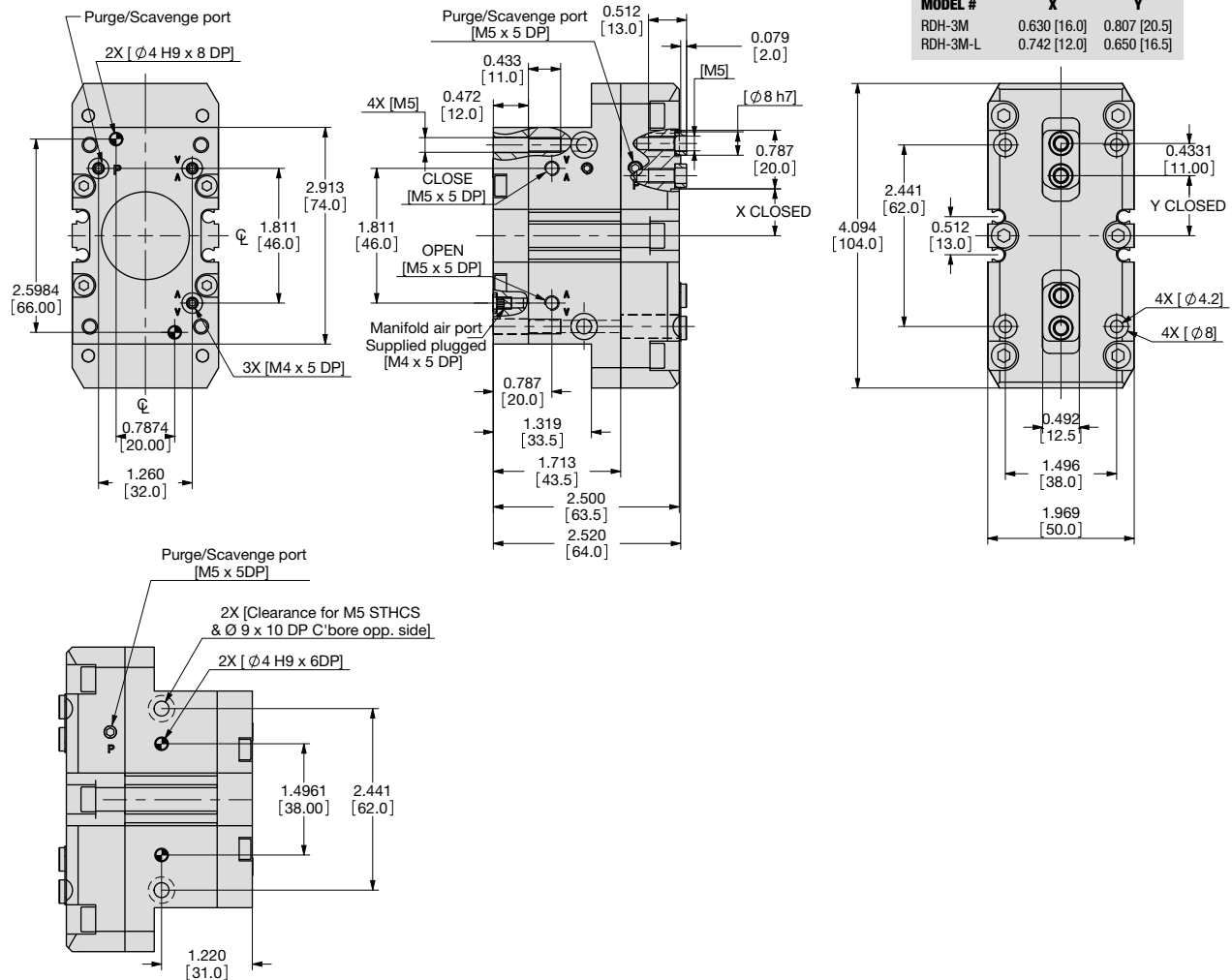
- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-363V)



Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-3M 2-JAW PARALLEL SERIES



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
				0.00 = ±.01	[0.] = [±.25]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]	Metric Threads Course Pitch	0.000 = ±.005	[0.0] = [±.13]
				0.0000 = ±.0005	[0.00] = [±.013]

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-3M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 3

METRIC M

EXTENDED STROKE

L 0.31" [8mm] Leave Blank (standard)

0.63" [16mm]

SPRING C

Spring Closed

O

Spring Open

Leave Blank. No Spring Option (standard)

VITON® SEALS V

High Temperature Viton® Seals

SENSOR ACCESSORIES*

PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

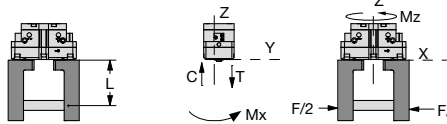
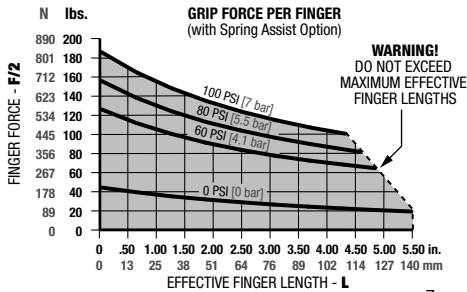
Buna-N Seal Repair Kit	SLKT-418	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-364	1
Viton® Seal Repair Kit	SLKT-418V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-364V	1
M5 Adjustable Flow Control	VLVF-008	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-3M-L-C-V

Ex: RDH-3M Parallel Gripper, Metric, 16mm Extended Stroke, Spring Closed, Viton® Seals

RDH-3M Loading Information

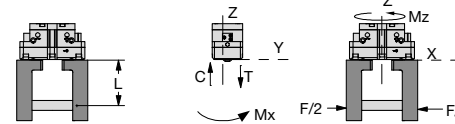
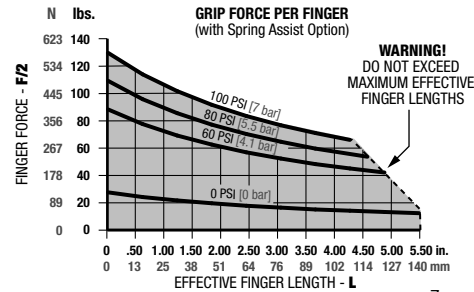


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	289 lbs. [1284 N]	44 lbs. [196 N]
Maximum Compressive C	374 lbs. [1665 N]	44 lbs. [196 N]
Maximum Moment M_x	513 in.-lbs. [58 Nm]	62 in.-lbs. [7 Nm]
Maximum Moment M_y	735 in.-lbs. [83 Nm]	97 in.-lbs. [11 Nm]
Maximum Moment M_z	478 in.-lbs. [54 Nm]	97 in.-lbs. [11 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-3M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	258 lbs. [1146 N]	29 lbs. [127 N]
Maximum Compressive C	334 lbs. [1485 N]	29 lbs. [127 N]
Maximum Moment M_x	460 in.-lbs. [52 Nm]	44 in.-lbs. [5 Nm]
Maximum Moment M_y	584 in.-lbs. [66 Nm]	53 in.-lbs. [6 Nm]
Maximum Moment M_z	381 in.-lbs. [43 Nm]	53 in.-lbs. [6 Nm]

†Capacities are per set of jaws and are not simultaneous

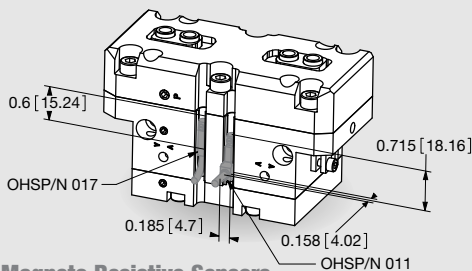
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	296 lbs.	1317 N
Without Spring Assist -L	192 lbs.	854 N
With Spring Assist	379 lbs.	1683 N
With Spring Assist -L	246 lbs.	1094 N
Total Stroke:		
Standard	0.31 in.	8 mm
Extended -L	0.63 in.	16 mm
Weight (RDH)	1.81/1.94 lbs.	0.82/0.88 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	50-100 psi	3.5-7 Bar

Specifications (cont.)

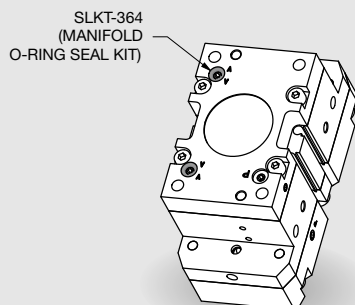
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	2.14 in ²	13.8 cm ²
Displacement	1.43 in ³	23.4 cm ³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.08 sec./0.08 sec.	
Accuracy	±0.0016 in.	±0.04 mm
Repeatability	±0.001 in.	±0.02 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



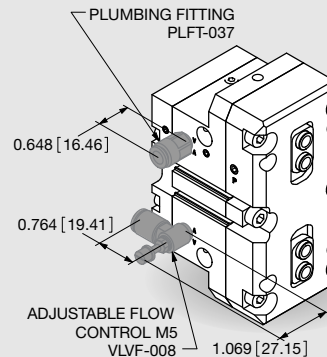
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-364V)

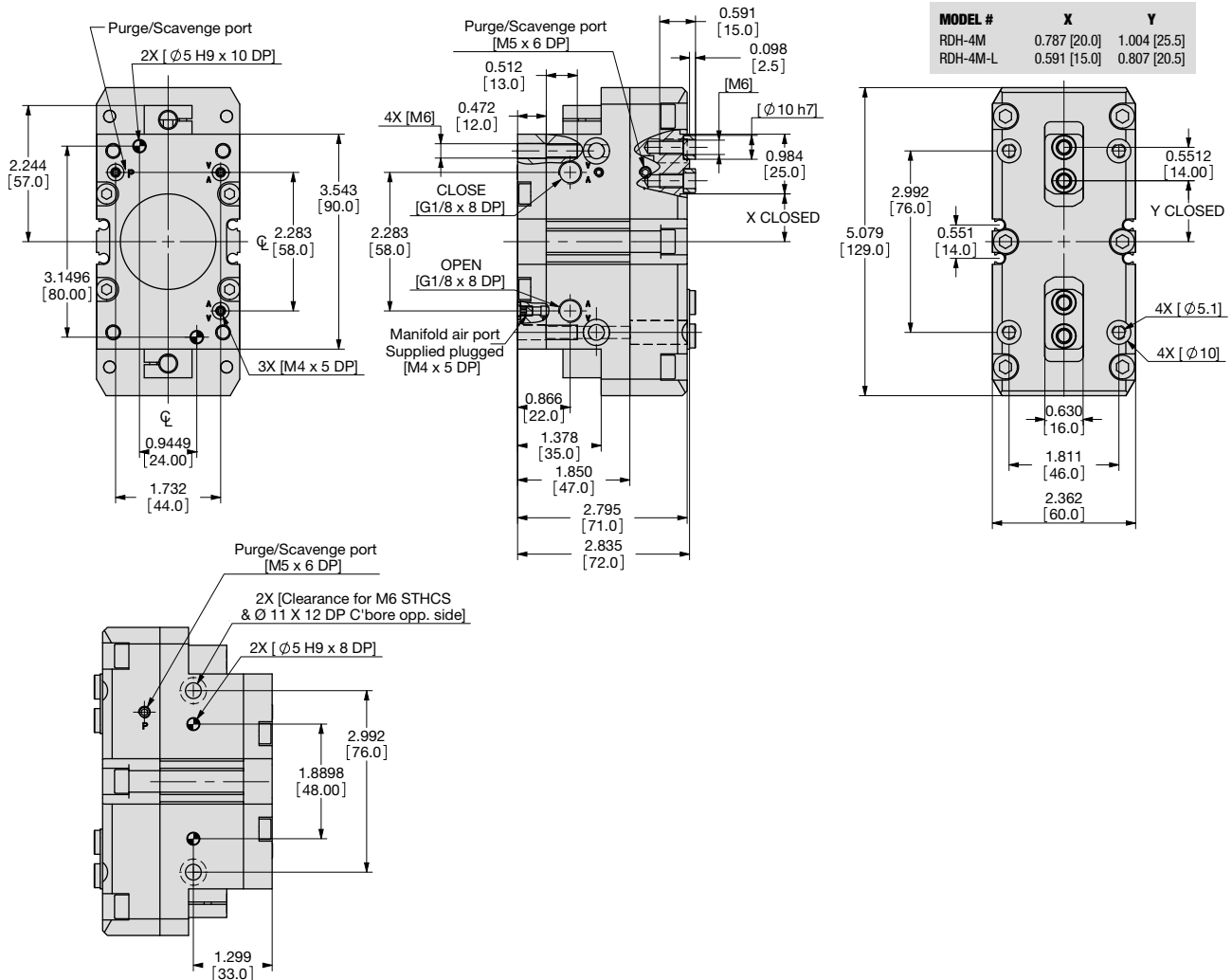


Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-4M

2-JAW PARALLEL SERIES



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-4M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 4

METRIC M

EXTENDED STROKE 0.39" [10mm] Leave Blank (standard)

L 0.79" [20mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

8mm PNP Inductive Sensor w/ M8 Quick Disconnect*	OISP-011	1 or 2
8mm NPN Inductive Sensor w/ M8 Quick Disconnect*	OISN-011	1 or 2
PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

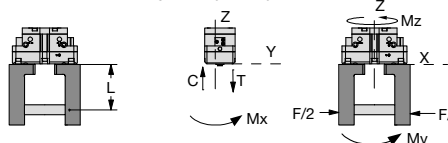
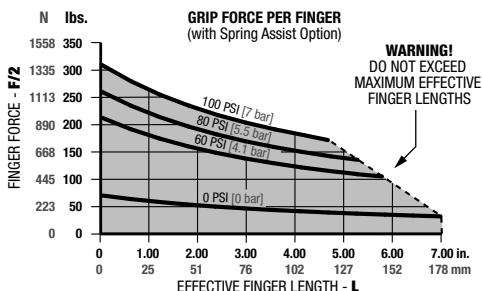
Buna-N Seal Repair Kit	SLKT-419	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-364	1
Viton® Seal Repair Kit	SLKT-419V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-364V	1
G 1/8" Adjustable Flow Control	VLVF-005	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-4M-L-C-V

Ex: RDH-4M Parallel Gripper, Metric, 20mm Extended Stroke, Spring Closed, Viton® Seals

RDH-4M Loading Information

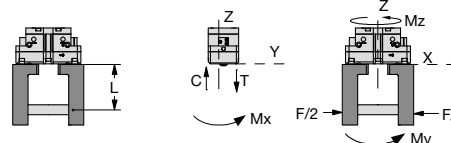
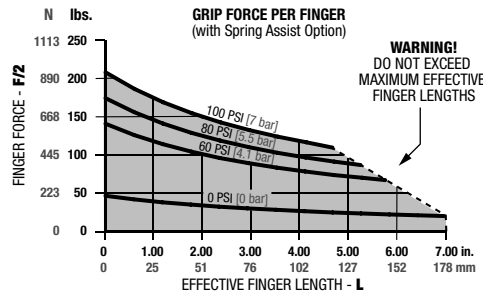


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	352 lbs. [1564 N]	58 lbs. [259 N]
Maximum Compressive C	465 lbs. [2070 N]	58 lbs. [259 N]
Maximum Moment M_x	673 in.-lbs. [76 Nm]	89 in.-lbs. [10 Nm]
Maximum Moment M_y	938 in.-lbs. [106 Nm]	124 in.-lbs. [14 Nm]
Maximum Moment M_z	620 in.-lbs. [70 Nm]	124 in.-lbs. [14 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-4M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	313 lbs. [1394 N]	38 lbs. [168 N]
Maximum Compressive C	415 lbs. [1845 N]	38 lbs. [168 N]
Maximum Moment M_x	602 in.-lbs. [68 Nm]	53 in.-lbs. [6 Nm]
Maximum Moment M_y	743 in.-lbs. [84 Nm]	71 in.-lbs. [8 Nm]
Maximum Moment M_z	496 in.-lbs. [56 Nm]	71 in.-lbs. [8 Nm]

†Capacities are per set of jaws and are not simultaneous

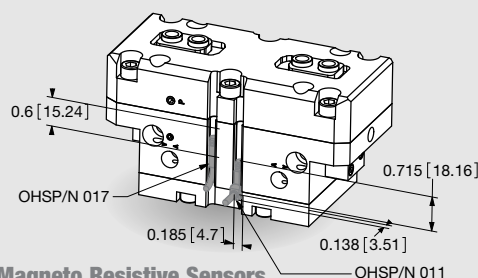
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	490 lbs.	2177 N
Without Spring Assist -L	318 lbs.	1414 N
With Spring Assist	628 lbs.	2789 N
With Spring Assist -L	408 lbs.	1814 N
Total Stroke:		
Standard	0.39 in.	10 mm
Extended -L	0.79 in.	20 mm
Weight (RDH)	3.15/3.33 lbs.	1.43/1.51 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	50-100 psi	3.5-7 Bar

Specifications (cont.)

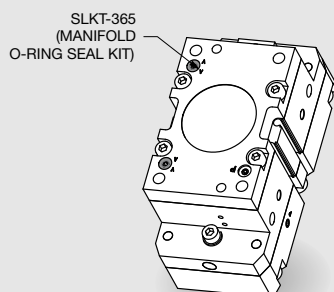
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	3.52 in²	22.7 cm²
Displacement	2.90 in³	47.5 cm³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.08 sec./0.08 sec.	
Accuracy	±0.0024 in.	±0.06 mm
Repeatability	±0.0012 in.	±0.03 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



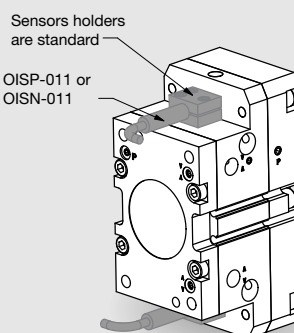
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



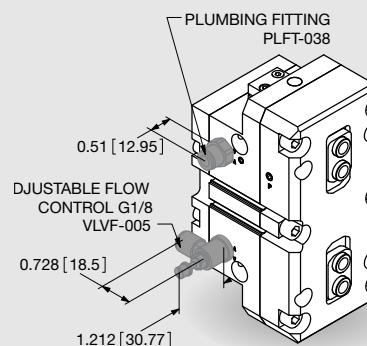
Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-364V)



Inductive Sensors

- PNP and NPN Magneto Resistive available
- Sensors holders and targets are standard mounted
- Simple adjustment of the target with screw driver
- Available with 2M Quick Disconnect mating cable (order separately)

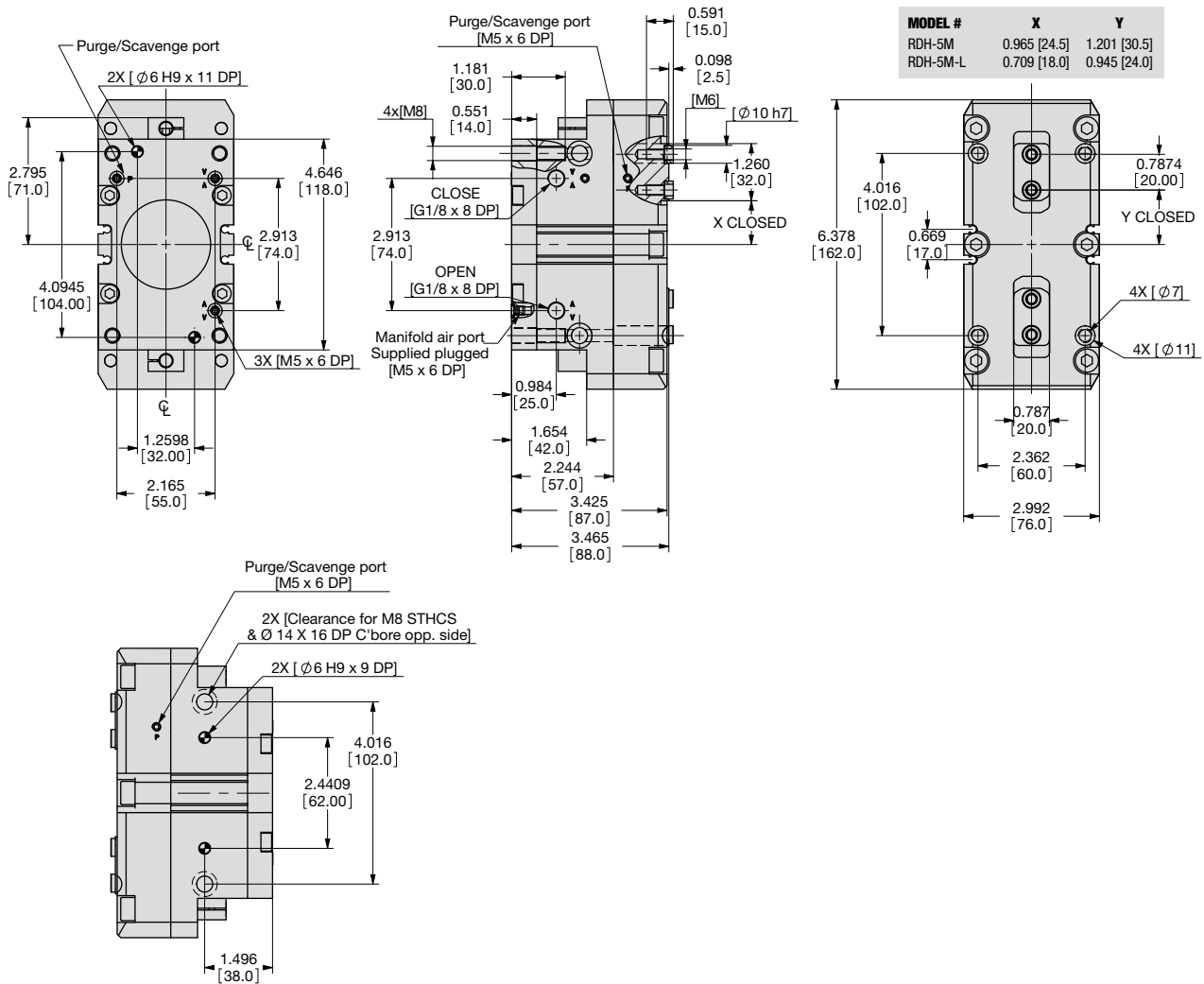


Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-5M 2-JAW PARALLEL SERIES

1.30



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-5M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 5

METRIC M

EXTENDED STROKE 0.51" [13mm] Leave Blank (standard)

L 1.02" [26mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

8mm PNP Inductive Sensor w/ M8 Quick Disconnect*	OISP-011	1 or 2
8mm NPN Inductive Sensor w/ M8 Quick Disconnect*	OISN-011	1 or 2
PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

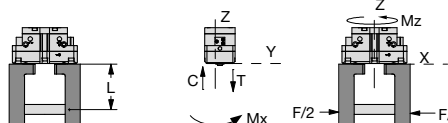
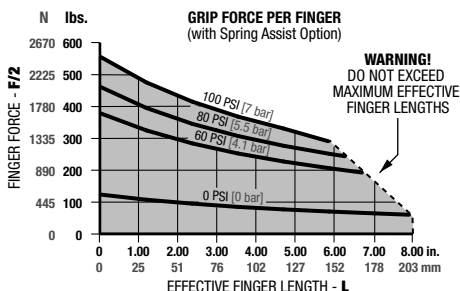
Buna-N Seal Repair Kit	SLKT-420	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-365	1
Viton® Seal Repair Kit	SLKT-420V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-365V	1
G 1/8" Adjustable Flow Control	VLVF-005	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-5M-L-C-V

Ex: RDH-5M Parallel Gripper, Metric, 26mm Extended Stroke, Spring Closed, Viton® Seals

RDH-5M Loading Information

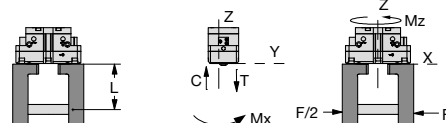
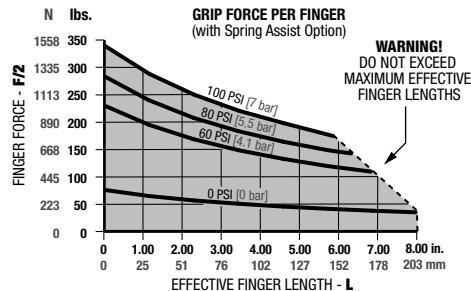


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	493 lbs. [2192 N]	96 lbs. [428 N]
Maximum Compressive C	657 lbs. [2923 N]	96 lbs. [428 N]
Maximum Moment M_x	929 in.-lbs. [105 Nm]	142 in.-lbs. [16 Nm]
Maximum Moment M_y	1310 in.-lbs. [148 Nm]	195 in.-lbs. [22 Nm]
Maximum Moment M_z	859 in.-lbs. [97 Nm]	195 in.-lbs. [22 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-5M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	442 lbs. [1966 N]	62 lbs. [278 N]
Maximum Compressive C	589 lbs. [2621 N]	62 lbs. [278 N]
Maximum Moment M_x	832 in.-lbs. [94 Nm]	89 in.-lbs. [10 Nm]
Maximum Moment M_y	1053 in.-lbs. [119 Nm]	115 in.-lbs. [13 Nm]
Maximum Moment M_z	690 in.-lbs. [78 Nm]	115 in.-lbs. [13 Nm]

†Capacities are per set of jaws and are not simultaneous

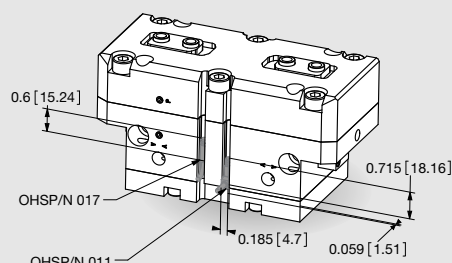
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	808 lbs.	3593 N
Without Spring Assist -L	525 lbs.	2333 N
With Spring Assist	1037 lbs.	4609 N
With Spring Assist -L	675 lbs.	2999 N
Total Stroke:		
Standard	0.51 in.	13 mm
Extended -L	1.02 in.	26 mm
Weight (RDH)	6.06/6.57 lbs.	2.75/2.98 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	60-100 psi	4-7 Bar

Specifications (cont.)

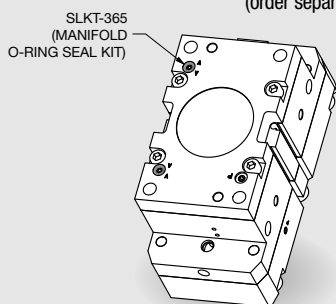
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	5.81 in²	37.5 cm²
Displacement	6.22 in³	102 cm³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.14 sec./0.14 sec.	
Accuracy	±0.0024 in.	±0.06 mm
Repeatability	±0.0012 in.	±0.03 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



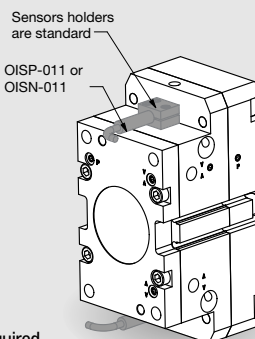
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



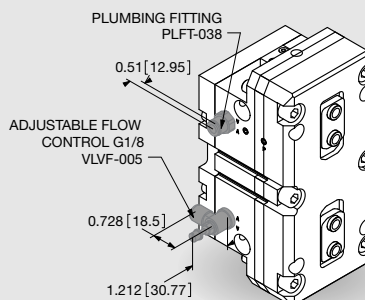
Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-365V)



Inductive Sensors

- PNP and NPN Magneto Resistive available
- Sensors holders and targets are standard mounted
- Simple adjustment of the target with screw driver
- Available with 2M Quick Disconnect mating cable (order separately)

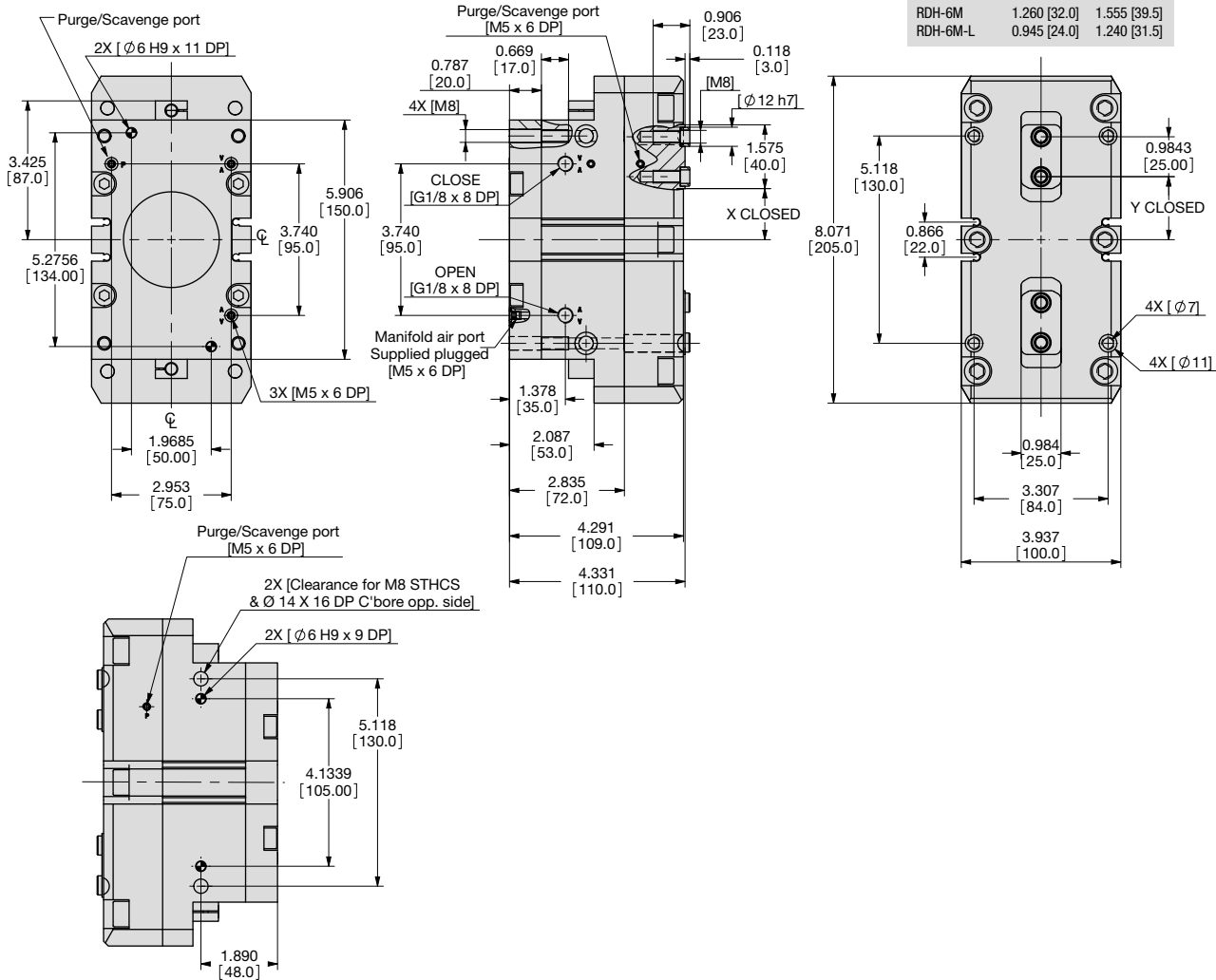


Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-6M 2-JAW PARALLEL SERIES

1.32



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-6M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 6

METRIC M

EXTENDED STROKE 0.63" [16mm] Leave Blank (standard)

1.26" [32mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

8mm PNP Inductive Sensor w/ M8 Quick Disconnect*	OISP-011	1 or 2
8mm NPN Inductive Sensor w/ M8 Quick Disconnect*	OISN-011	1 or 2
PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4

PNEUMATIC ACCESSORIES

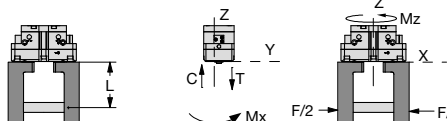
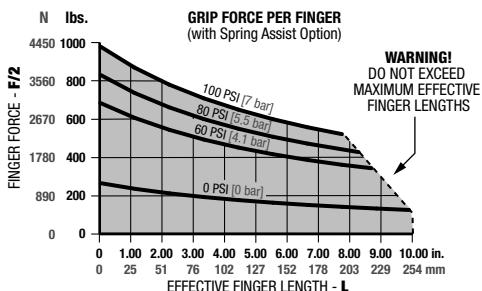
Buna-N Seal Repair Kit	SLKT-421	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-365	1
Viton® Seal Repair Kit	SLKT-421V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-365V	1
G 1/8" Adjustable Flow Control	VLVF-005	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-6M-L-C-V

Ex: RDH-6M Parallel Gripper, Metric, 32mm Extended Stroke, Spring Closed, Viton® Seals

RDH-6M Loading Information

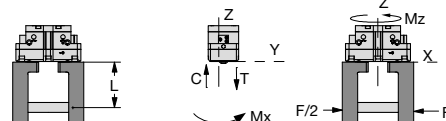
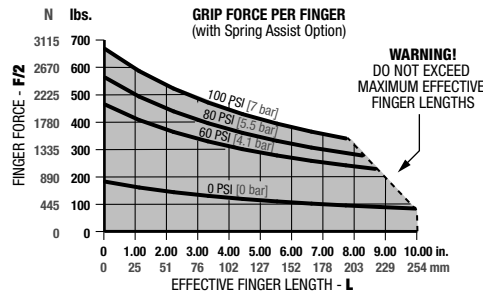


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	779 lbs. [3463 N]	186 lbs. [827 N]
Maximum Compressive C	1045 lbs. [4649 N]	186 lbs. [827 N]
Maximum Moment M_x	1204 in.-lbs. [136 Nm]	248 in.-lbs. [28 Nm]
Maximum Moment M_y	1744 in.-lbs. [197 Nm]	363 in.-lbs. [41 Nm]
Maximum Moment M_z	1151 in.-lbs. [130 Nm]	363 in.-lbs. [41 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-6M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	694 lbs. [3089 N]	121 lbs. [537 N]
Maximum Compressive C	932 lbs. [4146 N]	121 lbs. [537 N]
Maximum Moment M_x	1071 in.-lbs. [121 Nm]	159 in.-lbs. [18 Nm]
Maximum Moment M_y	1390 in.-lbs. [157 Nm]	212 in.-lbs. [24 Nm]
Maximum Moment M_z	912 in.-lbs. [103 Nm]	212 in.-lbs. [24 Nm]

†Capacities are per set of jaws and are not simultaneous

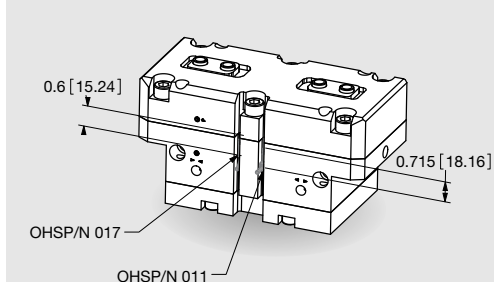
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	1406 lbs.	6250 N
Without Spring Assist -L	914 lbs.	4062 N
With Spring Assist	1944 lbs.	8640 N
With Spring Assist -L	1265 lbs.	5623 N
Total Stroke:		
Standard	0.63 in.	16 mm
Extended -L	1.26 in.	32 mm
Weight	12.72 lbs.	5.77 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	65-100 psi	4.5-7 Bar

Specifications (cont.)

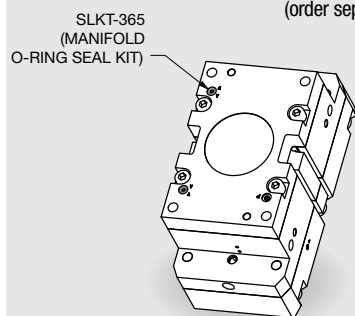
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	10.08 in²	65 cm²
Displacement	13.18 in³	216 cm³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.20 sec./0.20 sec.	
Accuracy	±0.0031 in.	±0.08 mm
Repeatability	±0.0016 in.	±0.04 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



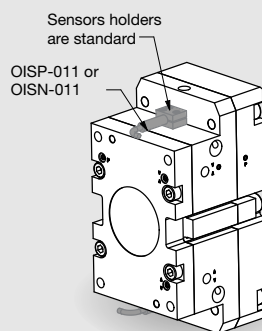
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-365V)



Inductive Sensors

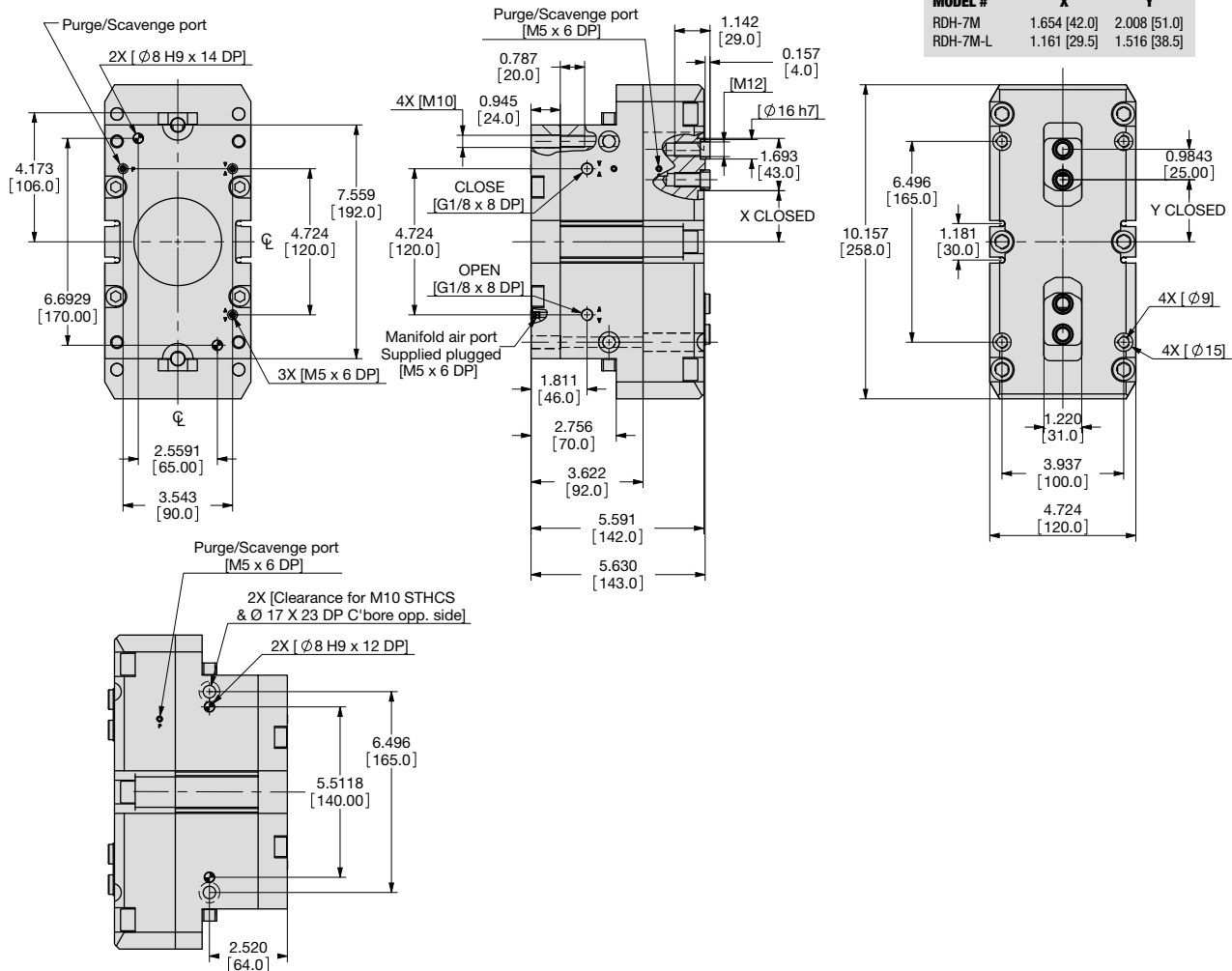
- PNP and NPN Magneto Resistive available
- Sensors holders and targets are standard mounted
- Simple adjustment of the target with screw driver
- Available with 2M Quick Disconnect mating cable (order separately)

Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-7M 2-JAW PARALLEL SERIES

1.34



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-7M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 7

METRIC M

EXTENDED STROKE L 0.98" [25mm] Leave Blank (standard)

1.97" [50mm]

SPRING C Spring Closed
O Spring Open
Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

12mm PNP Inductive Sensor w/ M12 Quick Disconnect*	OISP-017	1 or 2
12mm NPN Inductive Sensor w/ M12 Quick Disconnect*	OISN-017	1 or 2
PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
M8 Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
M8 Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4
M12 Quick Disconnect 2 Meter Cable Length*	CABL-014	1 or 2
M12 Quick Disconnect 5 Meter Cable Length*	CABL-018	1 to 2

PNEUMATIC ACCESSORIES

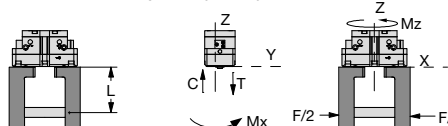
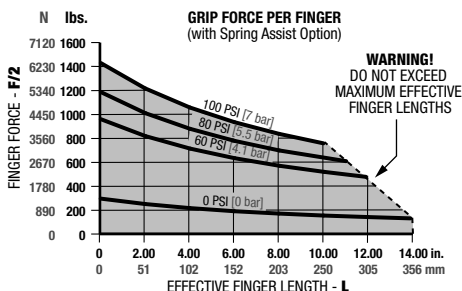
Buna-N Seal Repair Kit	SLKT-422	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-365	1
Viton® Seal Repair Kit	SLKT-422V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-365V	1
G 1/8" Adjustable Flow Control	VLVF-005	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-7M-L-C-V

Ex: RDH-7M Parallel Gripper, Metric, 50mm Extended Stroke, Spring Closed, Viton® Seals

RDH-7M Loading Information

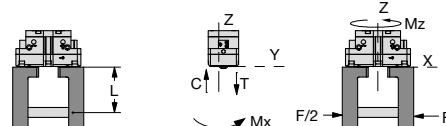
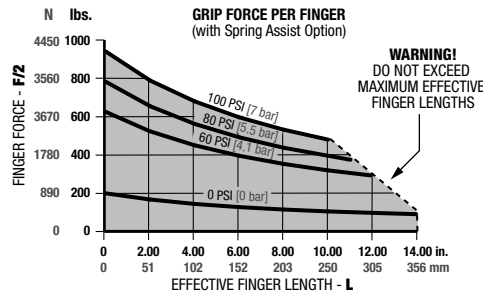


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	1013 lbs. [4505 N]	236 lbs. [1048 N]
Maximum Compressive C	1335 lbs. [5938 N]	236 lbs. [1048 N]
Maximum Moment M_x	1478 in.-lbs. [167 Nm]	319 in.-lbs. [36 Nm]
Maximum Moment M_y	2106 in.-lbs. [238 Nm]	451 in.-lbs. [51 Nm]
Maximum Moment M_z	1425 in.-lbs. [161 Nm]	451 in.-lbs. [51 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-7M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	879 lbs. [3911 N]	152 lbs. [678 N]
Maximum Compressive C	1159 lbs. [5155 N]	152 lbs. [678 N]
Maximum Moment M_x	1283 in.-lbs. [145 Nm]	204 in.-lbs. [23 Nm]
Maximum Moment M_y	1584 in.-lbs. [179 Nm]	257 in.-lbs. [29 Nm]
Maximum Moment M_z	1080 in.-lbs. [122 Nm]	257 in.-lbs. [29 Nm]

†Capacities are per set of jaws and are not simultaneous

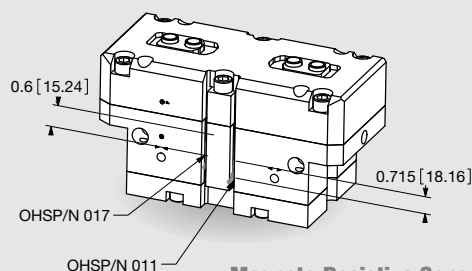
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	2228 lbs.	9901 N
Without Spring Assist -L	1441 lbs.	6404 N
With Spring Assist	2822 lbs.	12542 N
With Spring Assist -L	1830 lbs.	8135 N
Total Stroke:		
Standard	0.98 in.	25 mm
Extended -L	1.97 in.	50 mm
Weight	24.8 lbs.	11.25 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	60-100 psi	4-7 Bar

Specifications (cont.)

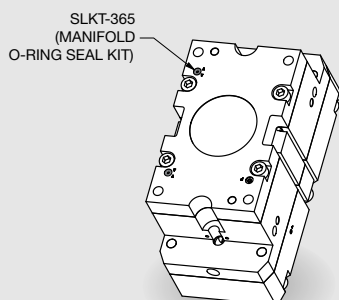
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	16.12 in ²	104 cm ²
Displacement	32.95 in ³	540 cm ³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	0.55 sec./0.55 sec.	
Accuracy	±0.0039 in.	±0.1 mm
Repeatability	±0.002 in.	±0.05 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



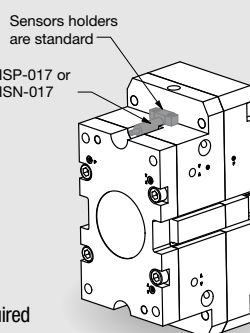
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



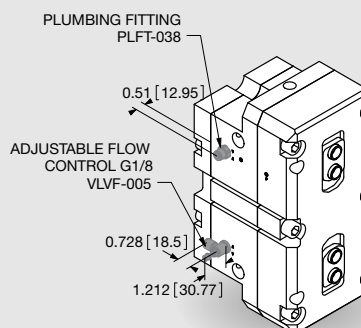
Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-365V)



Inductive Sensors

- PNP and NPN Magneto Resistive available
- Sensors holders and targets are standard mounted
- Simple adjustment of the target with screw driver
- Available with 2M Quick Disconnect mating cable (order separately)



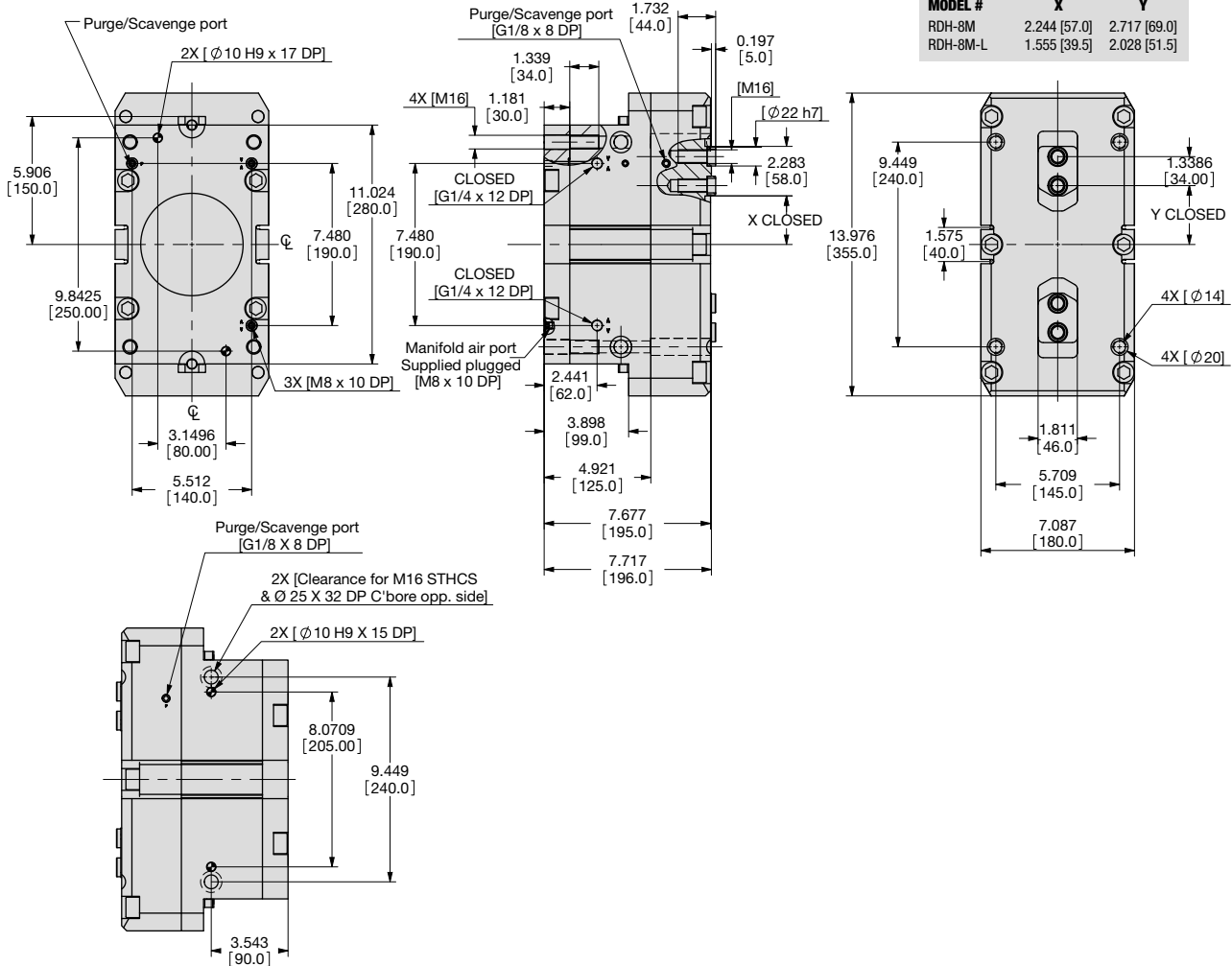
Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

PARALLEL GRIPPER RDH-8M

2-JAW PARALLEL SERIES

1.36



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	Third Angle Projection	All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm	Metric Threads Course Pitch	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013

How to Order: (Order Accessories separately from Basic Model)

BASIC MODEL SIZE METRIC SPRING ASSIST

RDH-8M-L-V

EXTENDED STROKE VITON SEALS®

BASIC MODEL RDH

SIZE 8

METRIC M

EXTENDED STROKE L 1.38" [35mm] Leave Blank (standard)

2.76" [70mm]

SPRING C Spring Closed
O Spring Open
— Leave Blank. No Spring Option (standard)

VITON® SEALS V High Temperature Viton® Seals

SENSOR ACCESSORIES*

12mm PNP Inductive Sensor w/ M12 Quick Disconnect*	OISP-017	1 or 2
12mm NPN Inductive Sensor w/ M12 Quick Disconnect*	OISN-017	1 or 2
PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSP-017	1 or 4
NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk Disc*	OHSN-017	1 or 4
PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSP-011	1 or 4
NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	OHSN-011	1 or 4
M8 Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 4
M8 Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 4
M12 Quick Disconnect 2 Meter Cable Length*	CABL-014	1 or 2
M12 Quick Disconnect 5 Meter Cable Length*	CABL-018	1 to 2

PNEUMATIC ACCESSORIES

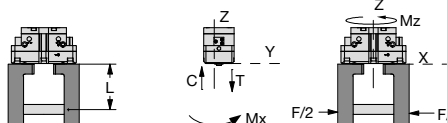
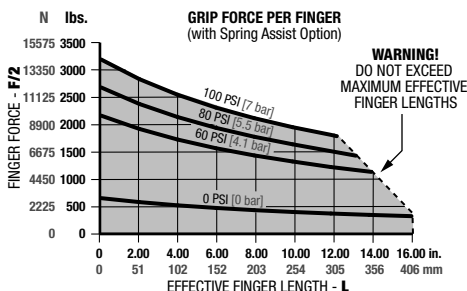
Buna-N Seal Repair Kit	SLKT-423	1
Buna-N Rear Inlet Seal Repair Kit	SLKT-366	1
Viton® Seal Repair Kit	SLKT-423V	1
Viton® Rear Inlet Seal Repair Kit	SLKT-366V	1
G 1/4" Adjustable Flow Control	VLVF-010	1 or 2

*Sensor and cable sold separately.

SAMPLE ORDER: RDH-8M-L-C-V

Ex: RDH-8M Parallel Gripper, Metric, 70mm Extended Stroke, Spring Closed, Viton® Seals

RDH-8M Loading Information

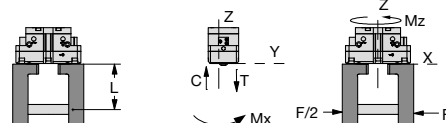
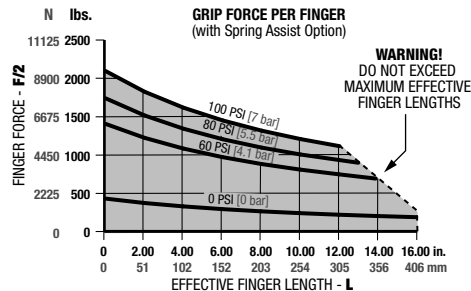


Loading Capacity†

	Static	Dynamic
Maximum Tensile T	1543 lbs. [6863 N]	392 lbs. [1743 N]
Maximum Compressive C	2006 lbs. [8921 N]	392 lbs. [1743 N]
Maximum Moment M_x	3354 in.-lbs. [379 Nm]	743 in.-lbs. [84 Nm]
Maximum Moment M_y	4257 in.-lbs. [481 Nm]	947 in.-lbs. [107 Nm]
Maximum Moment M_z	2664 in.-lbs. [301 Nm]	947 in.-lbs. [107 Nm]

†Capacities are per set of jaws and are not simultaneous

RDH-8M-L Loading Information



Loading Capacity†

	Static	Dynamic
Maximum Tensile T	1328 lbs. [5906 N]	253 lbs. [1125 N]
Maximum Compressive C	1726 lbs. [7678 N]	253 lbs. [1125 N]
Maximum Moment M_x	2885 in.-lbs. [326 Nm]	478 in.-lbs. [54 Nm]
Maximum Moment M_y	3160 in.-lbs. [357 Nm]	522 in.-lbs. [59 Nm]
Maximum Moment M_z	1974 in.-lbs. [223 Nm]	522 in.-lbs. [59 Nm]

†Capacities are per set of jaws and are not simultaneous

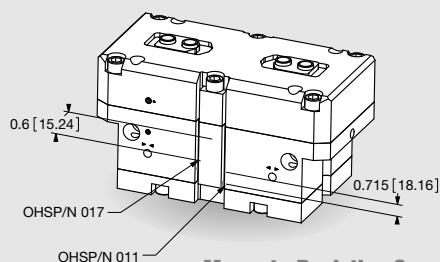
Specifications

Total Rated Grip Force, F @ 100 psi [7 bar]:		
Without Spring Assist	4941 lbs.	21958 N
Without Spring Assist -L	3190 lbs.	14178 N
With Spring Assist	6300 lbs.	28002 N
With Spring Assist -L	4076 lbs.	18115 N
Total Stroke:		
Standard	1.38 in.	35 mm
Extended -L	2.76 in.	70 mm
Weight	71.1 lbs.	32.3 Kg
Pressure Range without Spring	30-100 psi	2-7 Bar
Pressure Range with Spring	50-100 psi	3.5-7 Bar

Specifications (cont.)

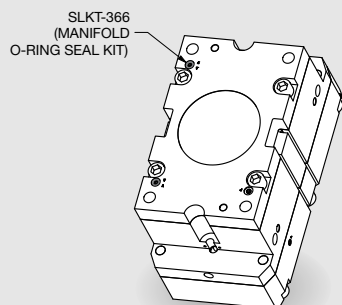
Max. Vacuum for Scavenge Port	8 in. Hg	20 mm Hg
Max. Pressure for Purge Port	30 psi	2.1 Bar
Cylinder Surface	35.81 in²	231 cm²
Displacement	103.1 in³	1689 cm³
Temperature Range	-30°~180° F	-35°~80° C
Actuation (open/close)	1.3 sec./1.3 sec.	
Accuracy	±0.0039 in.	±0.1 mm
Repeatability	±0.002 in.	±0.05 mm
Valve required to actuate single acting	3-way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

Accessory Mounting Technical Data



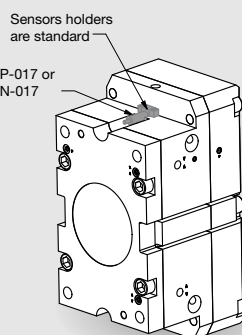
Magneto Resistive Sensors

- PNP and NPN Magneto Resistive available
- Sensors are slot mounted, no mounting kits required
- Simple adjustment with slotted screw driver
- Built in LED for ease of positioning and troubleshooting
- Available with 2M Quick Disconnect mating cable (order separately)



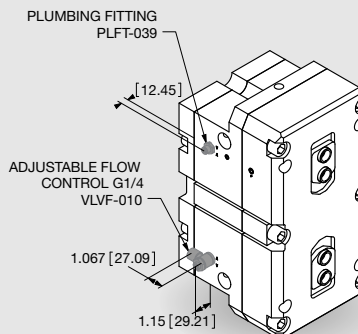
Manifold O-Ring Seals

- Used to seal top air ports and purge/scavenge port
- No C'bore holes in customer's mounting plate required (C'bore are machined in the gripper's body)
- Seals in manifold kit are Buna-N (Viton® seal kit SLKT-366V)



Inductive Sensors

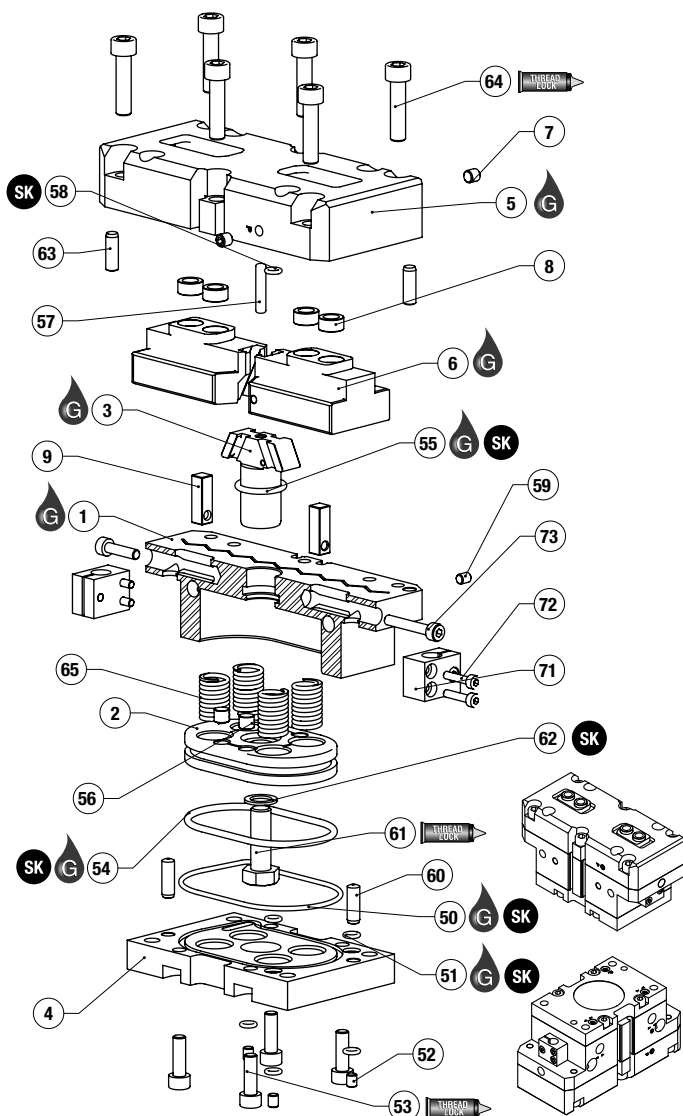
- PNP and NPN Magneto Resistive available
- Sensors holders and targets are standard mounted
- Simple adjustment of the target with screw driver
- Available with 2M Quick Disconnect mating cable (order separately)



Plumbing Fittings

- Adjustable flow controls:
 - Have thumb screw adjust with locking nut for adjusting actuation time
 - Available for 6mm OD tubing
- Plumbing fittings:
 - For side air port location
 - Top air port are plugged as standard

RDH Series Exploded View



Item	Qty	Name
01	1	Body
02	1	Piston
03	1	Double wedge
04	1	Cap
05	1	Bottom Case
06	2	Jaws
07	2	Bottom Case, SS Screw
08	4	Locating sleeve
09	2	Sensing nut
50	1	Cap, O-ring
51	2	Cap, O-ring
52	3	Cap, SS screw
53	4	Cap, SHC screw
54	1	Piston, O-ring
55	1	Body, O-ring
56	4	Piston, Magnet
57	1	Piston, Pin
58	1	Bottom case, O-ring
59	1	Body, SS screw
60	2	Cap, Pin
61	1	Double wedge, HH screw
62	1	Double wedge, Seal
63	2	Bottom case, Pin
64	6	Bottom case, SHC Screw
65	4 or 8	Spring
71	2	Sensor holder
72	4	Sensor holder, SHC screw
73	2	Sensing nut, SHC screw

NOTE: Contact the Destaco-Robohand Sales Department for a complete spare parts list with order numbers and prices.

SK Seal Repair Kit Order #'s
See Product Data Sheets

Assembly Procedure

- 1) Lubricate and install seal #55 into the body #1
- 2) Install #59 screw with thread locker into the body #1
- 3) Sub assemble the sensing nuts #9 into the jaws #6
- 4) Sub assemble the jaws #6 on either side of the double wedge #3 with lubrication
- 5) Insert the jaws and double wedge sub assembly into the body
- 6) Install seal #58 into the bottom case #5
- 7) Insert the screws #7 into the bottom case #5
- 8) Install bottom case #5 with pressed-in pins #63 onto the body and fasten with #64 screws with thread locker
- 9) Lubricate and install seal #54 into the piston #2
- 10) Mount magnets #56 to piston #2 with thread locker

- 11) For -C option, insert the springs #65 into the body #1 counterbore holes
- 12) Insert the piston #2 with pressed-in pin #57 onto the double wedge #3 and fasten with screw #61 with thread locker and washer #62. Face mount the piston counterbore holes to the body counterbore holes for -C option. Opposite mount for -O option.
- 13) For -O option, insert the springs #65 into the piston #2 counterbore holes
- 14) Install the screws #52 with thread locker onto the cap #4
- 15) Install seals #50 and #51 into the cap #4
- 16) Insert the cap #4 into the body #1 and locate it using cap dowel pins #60
- 17) Fasten the cap #4 with #53 screws with thread locker
- 18) Install the sensor holders #71 onto the body and fasten with screws #72

- 19) Insert screws #73 into the sensing nuts #9 from the body holes
- 20) Insert locating sleeves #8 into the jaws



Seal Kit
Items



Thread
Locker



Krytox™
Lubricant



Lightweight
Machine Oil



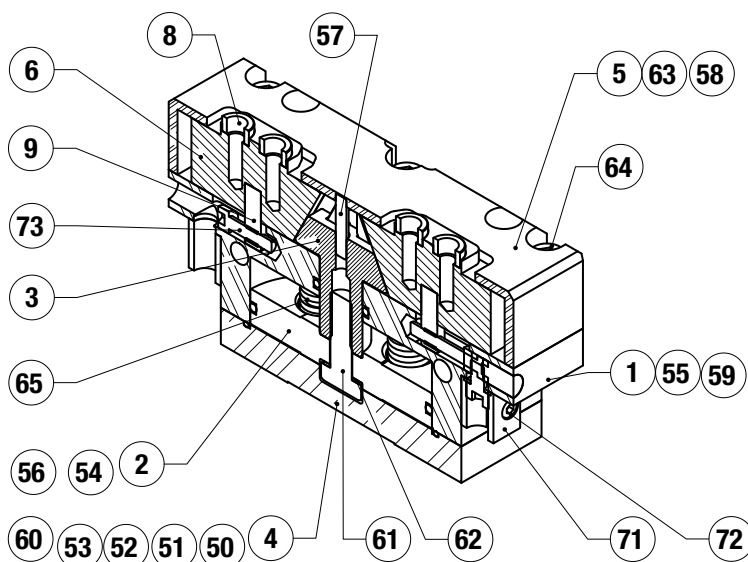
Teflon® Based
Grease



Super
Bonder



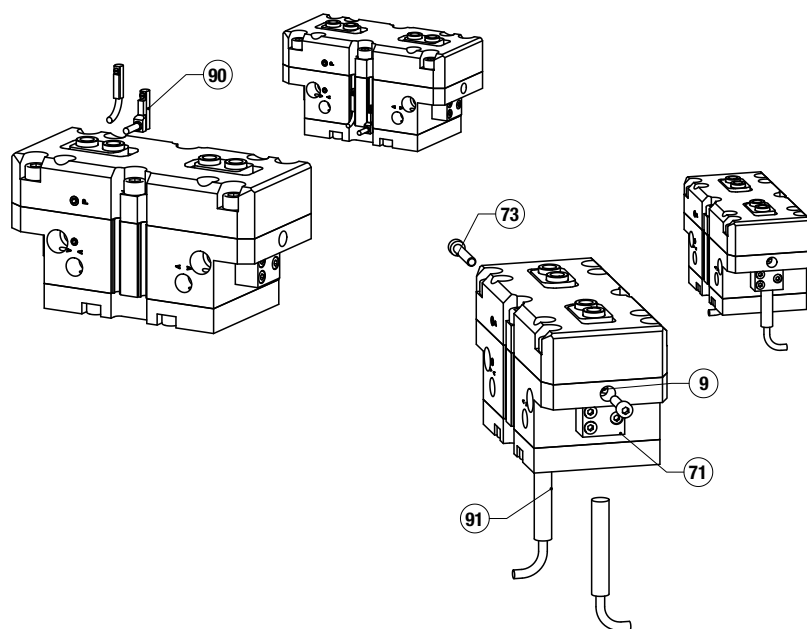
Third Angle
Projection



Item	Qty	Name
01	1	Body
02	1	Piston
03	1	Double wedge
04	1	Cap
05	1	Bottom Case
06	2	Jaws
07	2	Bottom Case, SS Screw
08	4	Locating sleeve
09	2	Sensing nut
50	1	Cap, O-ring
51	2	Cap, O-ring
52	3	Cap, SS screw
53	4	Cap, SHC screw
54	1	Piston, O-ring
55	1	Body, O-ring
56	4	Piston, Magnet
57	1	Piston, Pin
58	1	Bottom case, O-ring
59	1	Body, SS screw
60	2	Cap, Pin
61	1	Double wedge, HH screw
62	1	Double wedge, Seal
63	2	Bottom case, Pin
64	6	Bottom case, SHC Screw
65	4 or 8	Spring
71	2	Sensor holder
72	4	Sensor holder, SHC screw
73	2	Sensing nut, SHC screw

NOTE: Contact the Destaco-Robohand Sales Department for a complete spare parts list with order numbers and prices.

Accessory Installation & Adjustment Instructions



Magneto Resistive Sensor #90

- 1) Insert sensor #90 from either end of the profile slot
- 2) Adjust the sensor #90 into the profile slot, depending on the position to sense
- 3) Set the sensor with the integrated screw

Inductive Sensor #91

- 1) Insert sensor #91 into the sensor holder #71
- 2) Tighten the sensor using the SHC screw onto the sensor holder #71
- 3) Insert the SHC screw #73 into the sensing nut #9. The SHC screws are the targets to be adjusted in front of the sensor. The SHC screws #73 are supplied with 2 different lengths: depending on the position to sense, use the shortest for open position, or the longest for close position. The sensing nut #9 has a thread insert that prevents the target from loosening (this may make the target harder to tighten into the nut).



Seal Kit
Items



Thread
Locker



Krytox™
Lubricant



Lightweight
Machine Oil



Teflon® Based
Grease



Super
Bonder



Third Angle
Projection