

uRDH SERIES

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

Features:

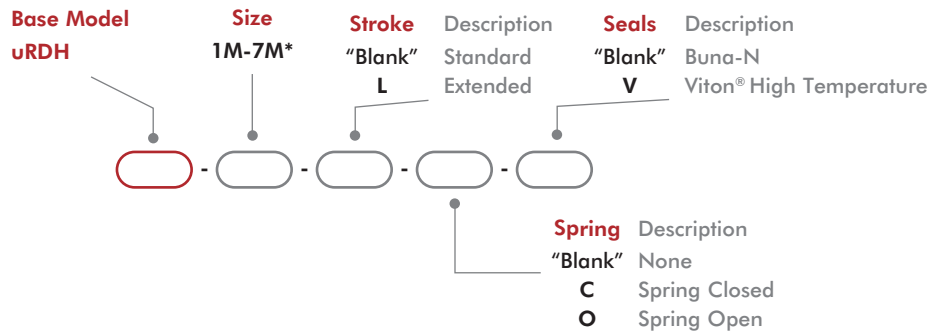
- Rugged, multi-purpose, powerful 2-jaw gripper
- Ideal for retrofitting and replacing grippers from other manufacturers
- 7 sizes for small lightweight to very large and heavy part gripping
- High impact resistant with double wedge design
- Shielded gripper to repel metal chips and particulates
- Spring assist option maintains grip in case of air pressure loss
- Purge and scavenge ports for harsh & clean environments
- Sensing up to 2 locations



Applications:

- High particulate application environments
- Automotive engine block and gantry systems
- Ideal for very heavy part gripping

How To Order



*For sizes uRDH-5M to -7M contact DESTACO for information.

Accessories

Sensor Accessories	Model Numbers	Part Number	Qty/Unit
8mm PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	All Models	OHSP-011	1-2
8mm NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	All Models	OHSN-011	1-2
8mm PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk. Disc*	All Models	OHSP-017	1-2
8mm NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk. Disc*	All Models	OHSN-017	1-2
M8 Quick Disconnect 2 Meter Cable Length*	All Models	CABL-010	1-2
M8 Quick Disconnect 5 Meter Cable Length*	All Models	CABL-013	1-2

Pneumatic Accessories	Model Numbers	Part Number	Qty/Unit
Adjustable Flow Control M5 (90°)	All Models	VLVF-008	1-2
Adjustable Flow Control G 1/8 (90°)	uRDH-5M, -6M, -7M	VLVF-005	1-2
Push-in Fitting M5	All Models	PLFT-037	1-2
Push-in Fitting G 1/8	uRDH-5M, -6M, -7M	PLFT-038	1-2
Push-in Fitting M5 (90°)	All Models	PLFT-041	1-2
Push-in Fitting G 1/8 (90°)	uRDH-5M, -6M, -7M	PLFT-042	1-2

*Sensor and cable sold separately.

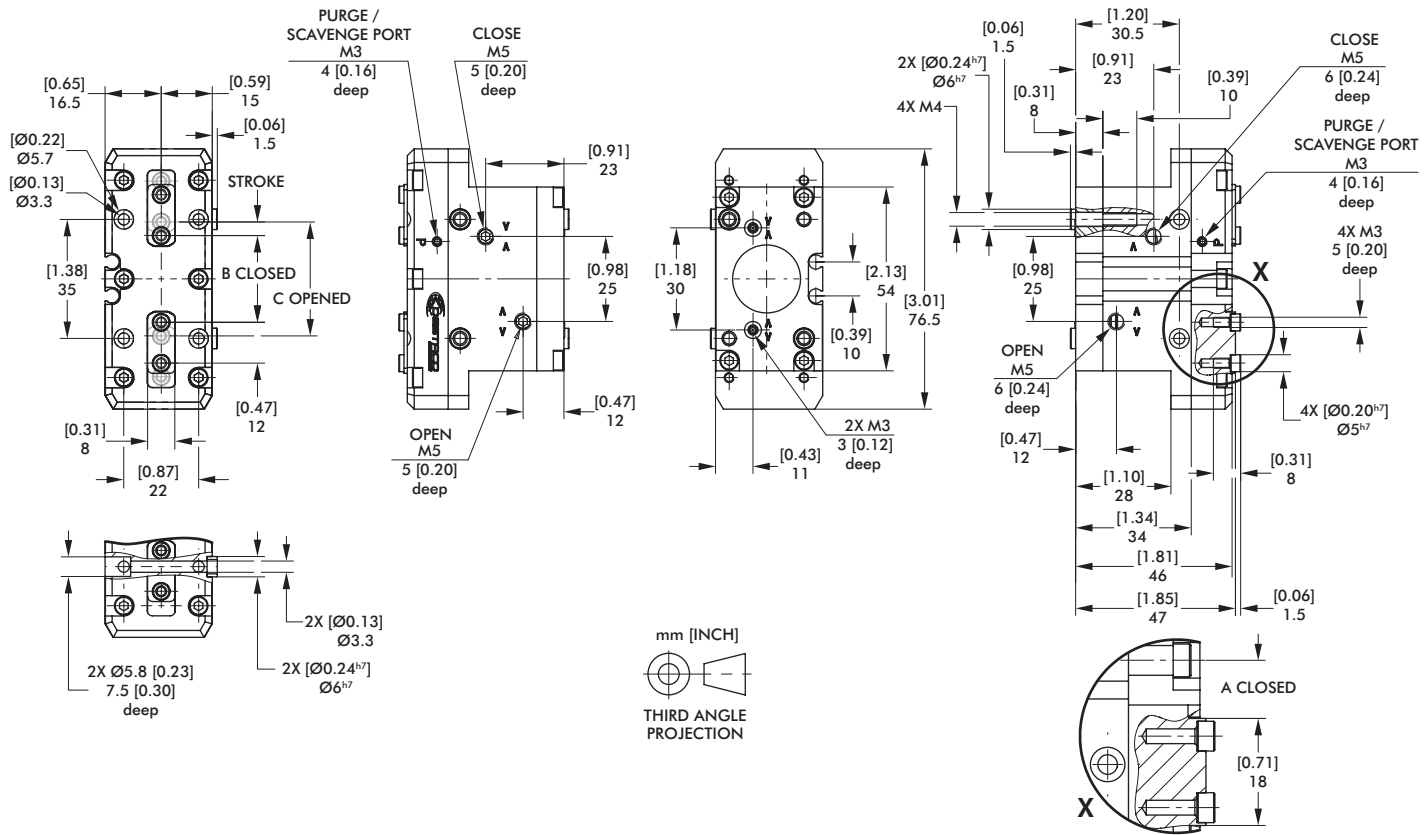
2-Jaw Universal Parallel Grippers | Technical Specifications

Specifications	Units	1M	1M-L	2M	2M-L	3M	3M-L	4M	4M-L
Total Rated Grip Force F	N	555	361	754	494	1317	854	2177	1414
@ 100 psi [7 bar] w/o Spring Assist	[lbs]	[125]	[81]	[170]	[111]	[296]	[192]	[490]	[318]
Total Rated Grip Force F	N	693	452	1006	661	1683	1094	2789	1814
@ 100 psi [7 bar] w/ Spring Assist	[lbs]	[156]	[102]	[226]	[149]	[379]	[246]	[628]	[408]
Total Stroke	mm	4	8	6	12	8	16	10	20
	[in]	[0.16]	[0.31]	[0.24]	[0.47]	[0.31]	[0.63]	[0.39]	[0.79]
Weight	kg [lbs]	0.27 [0.60]		0.49 [1.08]		0.86 [1.90]		1.59 [3.51]	
Pressure Range w/o Spring	bar [psi]	2-7 [30-100]							
Pressure Range w/ Spring	bar [psi]	3.5-7 [50-100]							
Max. Vacuum for Scavenge Port	mm Hg [in Hg]	200 [8]							
Max. Pressure for Purge Port	bar [psi]	2.1 [30]							
Ingress Protection Class (IP)		IP55							
Displacement	cm³ [in³]	5 [0.31]		10.3 [0.63]		23.4 [1.43]		47.5 [2.90]	
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]							
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]							
Actuation (open/close)	sec.	0.06		0.07		0.08			
Accuracy	mm	±0.04						±0.06	
	[in]	[±0.0016]						[±0.0024]	
Repeatability	mm	±0.02						±0.03	
	[in]	[±0.0008]						[±0.0012]	
Valve to Actuate Single Acting		3-way, 2-position							
Valve to Actuate Double Acting		4-way, 2-position							

Specifications (cont.)	Units	5M	5M-L	6M	6M-L	7M	7M-L
Total Rated Grip Force F	N	Contact DESTACO for more information.					
@ 100 psi [7 bar] w/o Spring Assist	[lbs]						
Total Rated Grip Force F	N						
@ 100 psi [7 bar] w/ Spring Assist	[lbs]						
Total Stroke	mm [in]	12 [0.47]	26 [1.02]	16 [0.63]	32 [1.26]	28 [1.10]	50 [1.97]
Weight	kg [lbs]	2.67 [5.89]		5.14 [11.33]		9.97 [21.98]	10.03 [22.11]
Pressure Range w/o Spring	bar [psi]	2-7 [30-100]					
Pressure Range w/ Spring	bar [psi]	4-7 [60-100]					
Max. Vacuum for Scavenge Port	mm Hg [in Hg]	200 [8]					
Max. Pressure for Purge Port	bar [psi]	2.1 [30]					
Ingress Protection Class (IP)		IP55					
Displacement	cm ³ [in ³]	61 [3.72]		181 [11.05]		367 [22.40]	
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]					
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]					
Actuation (open/close)	sec.	0.14		0.20		0.55	
Accuracy	mm [in]	±0.06 [±0.0024]		±0.08 [±0.0031]		±0.10 [±0.0039]	
Repeatability	mm [in]	±0.03 [±0.0012]		±0.04 [±0.0016]		±0.05 [±0.0019]	
Valve to Actuate Single Acting		3-way, 2-position					
Valve to Actuate Double Acting		4-way, 2-position					

uRDH-1M, -1M-L

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

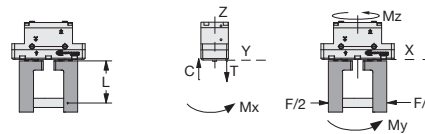
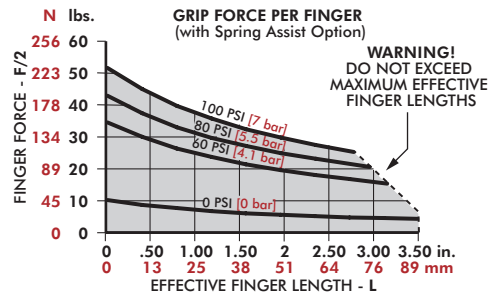
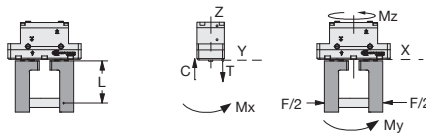
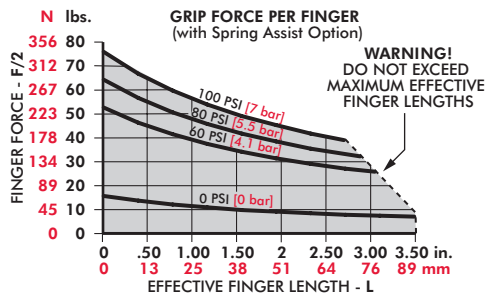


Model	A	B	C	Stroke x 2
uRDH-1M	10.75 [0.42]	27.5 [1.08]	31.5 [1.24]	2 [0.08]
uRDH-1M-L	9.75 [0.38]	25.5 [1.00]	33.5 [1.32]	4 [0.16]

Dimensions in mm [in]

Seal Repair Kits	uRDH-1M
Buna-N Seal Repair Kit	SLKT-uRDH-1M
Viton® Seal Repair Kit	SLKT-uRDH-1M-V

Loading Information



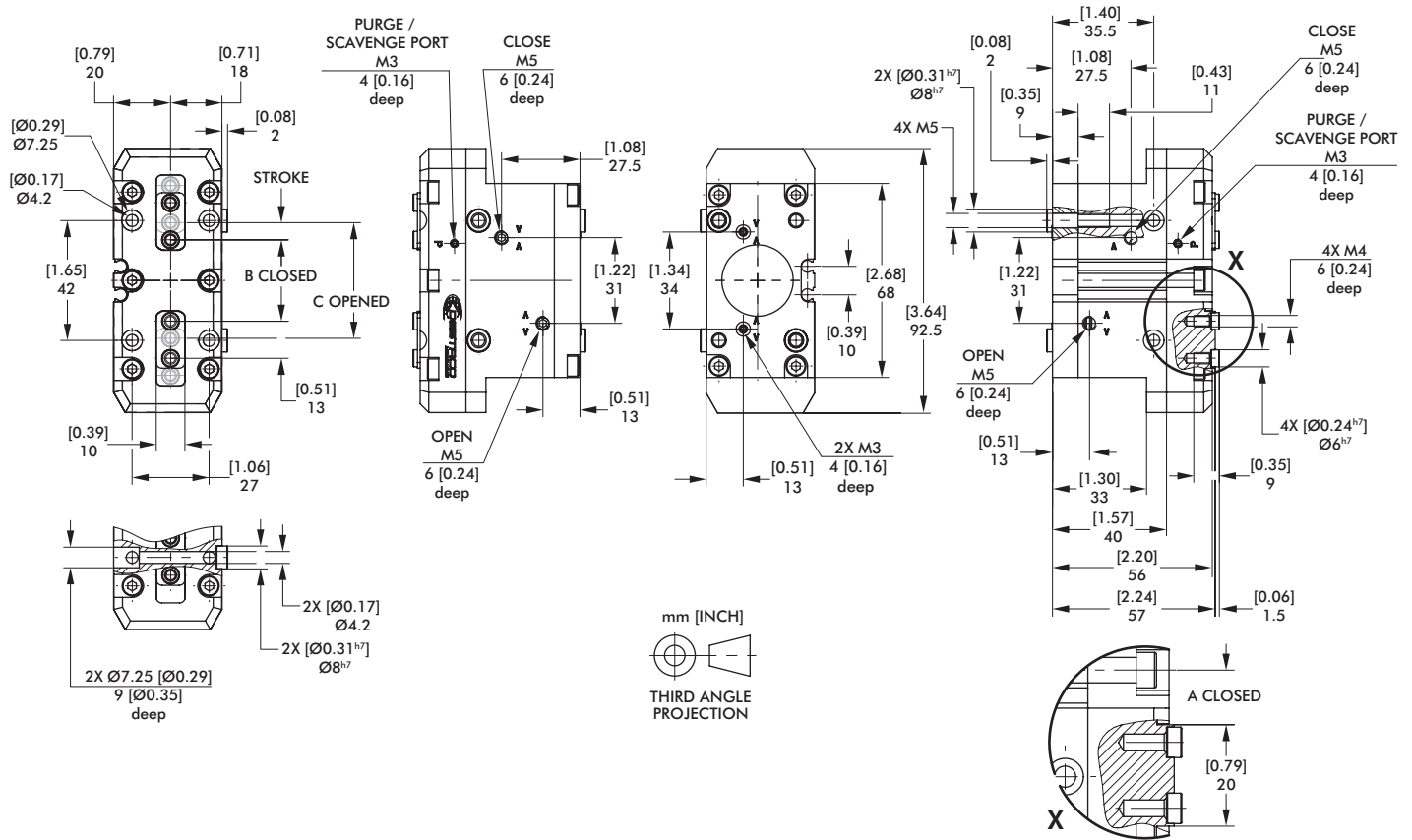
uRDH-1M	Static	Dynamic
Maximum Tensile T	594 N [134 lbs]	74 N [17 lbs]
Maximum Compressive C	779 N [175 lbs]	74 N [17 lbs]
Maximum Moment M_x	18 Nm [159 in-lbs]	2 Nm [18 in-lbs]
Maximum Moment M_y	23 Nm [204 in-lbs]	2 Nm [18 in-lbs]
Maximum Moment M_z	14 Nm [124 in-lbs]	2 Nm [18 in-lbs]

*Capacities are per set of jaws and are not simultaneous

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

*Capacities are per set of jaws and are not simultaneous

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

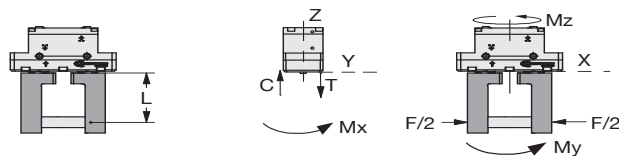
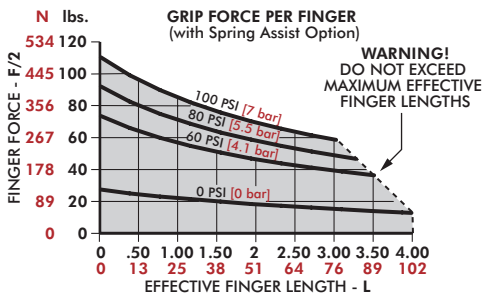


Model	A	B	C	Stroke x 2
uRDH-2M	10.75 [0.42]	28.5 [1.12]	34.5 [1.36]	3 [0.12]
uRDH-2M-L			40.5 [1.59]	6 [0.24]

Dimensions in mm [in]

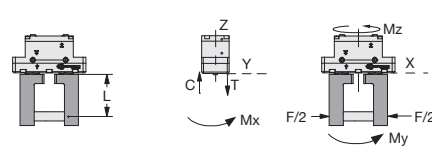
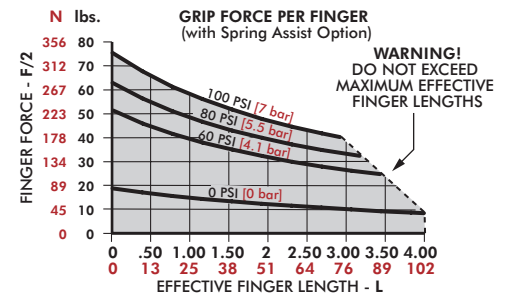
Seal Repair Kits	uRDH-2M
Buna-N Seal Repair Kit	SLKT-uRDH-2M
Viton® Seal Repair Kit	SLKT-uRDH-2M-V

Loading Information



uRDH-2M	Static	Dynamic
Maximum Tensile T	849 N [191 lbs]	81 N [18 lbs]
Maximum Compressive C	1103 N [248 lbs]	81 N [18 lbs]
Maximum Moment M_x	36 Nm [319 in-lbs]	3 Nm [27 in-lbs]
Maximum Moment M_y	51 Nm [451 in-lbs]	4 Nm [35 in-lbs]
Maximum Moment M_z	32 Nm [283 in-lbs]	4 Nm [35 in-lbs]

*Capacities are per set of jaws and are not simultaneous

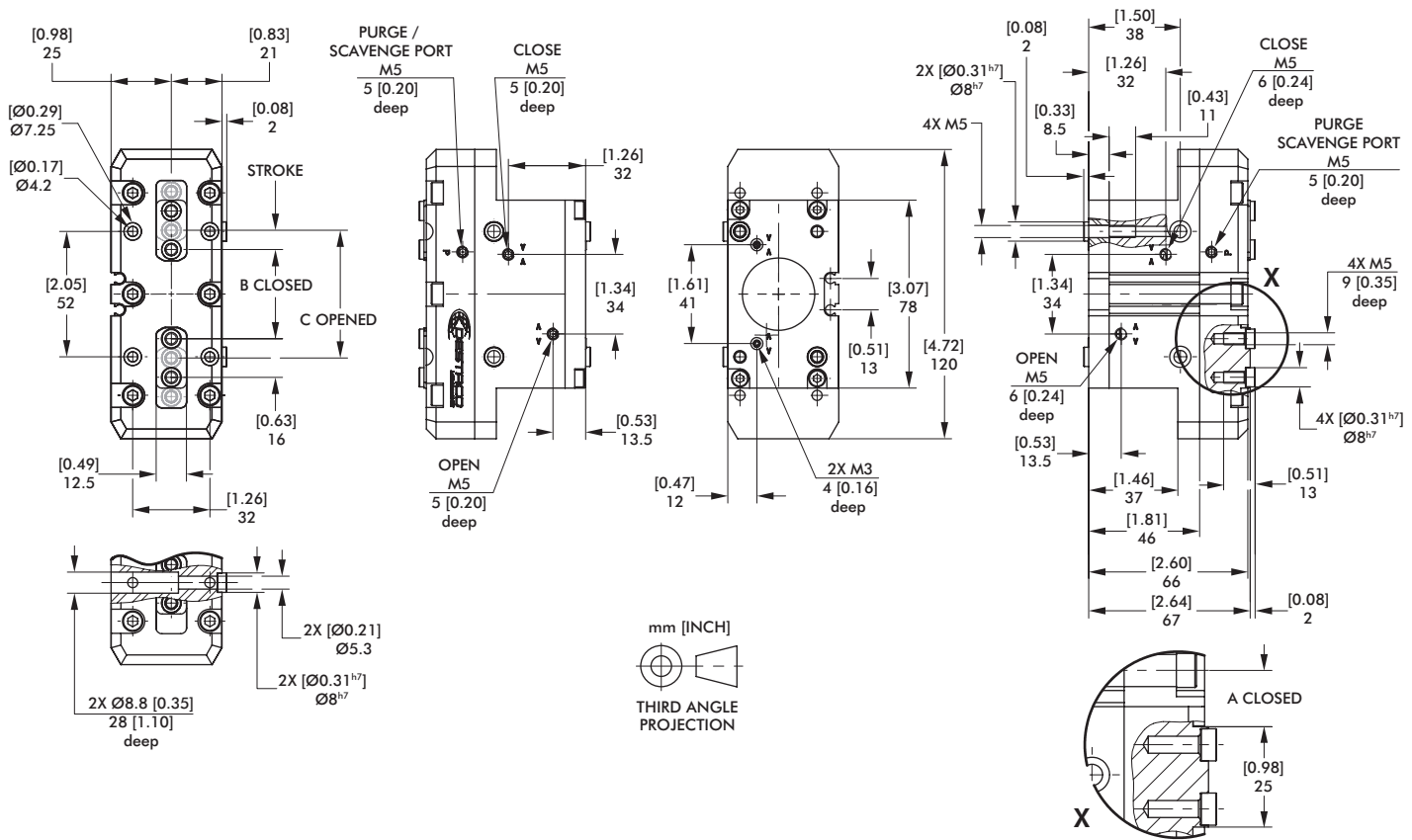


uRDH-2M-L	Static	Dynamic
Maximum Tensile T	764 N [172 lbs]	53 N [12 lbs]
Maximum Compressive C	993 N [223 lbs]	53 N [12 lbs]
Maximum Moment M_x	32 Nm [283 in-lbs]	2 Nm [18 in-lbs]
Maximum Moment M_y	41 Nm [363 in-lbs]	2 Nm [18 in-lbs]
Maximum Moment M_z	26 Nm [230 in-lbs]	2 Nm [18 in-lbs]

*Capacities are per set of jaws and are not simultaneous

uRDH-3M, -3M-L

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

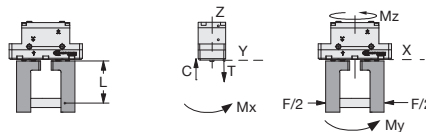
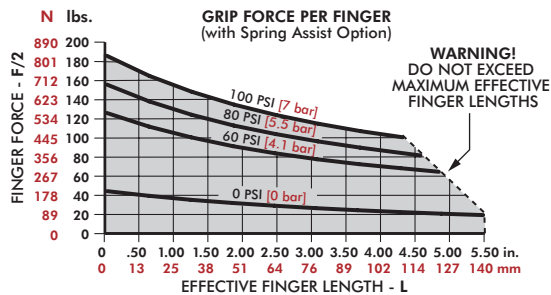


Model	A	B	C	Stroke x 2
uRDH-3M	14 [0.55]	37 [1.46]	45 [1.77]	4 [0.16]
uRDH-3M-L			53 [2.09]	8 [0.31]

Dimensions in mm [in]

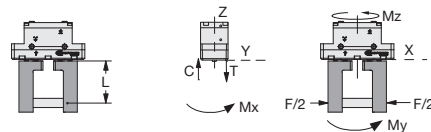
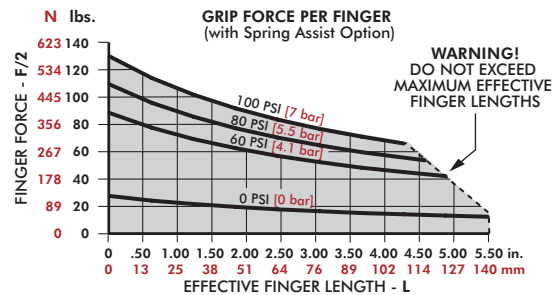
Seal Repair Kits	uRDH-3M
Buna-N Seal Repair Kit	SLKT-uRDH-3M
Viton® Seal Repair Kit	SLKT-uRDH-3M-V

Loading Information



uRDH-3M	Static	Dynamic
Maximum Tensile T	1284 N [289 lbs]	196 N [44 lbs]
Maximum Compressive C	1665 N [374 lbs]	196 N [44 lbs]
Maximum Moment M _x	58 Nm [513 in-lbs]	7 Nm [62 in-lbs]
Maximum Moment M _y	83 Nm [735 in-lbs]	11 Nm [97 in-lbs]
Maximum Moment M _z	54 Nm [478 in-lbs]	11 Nm [97 in-lbs]

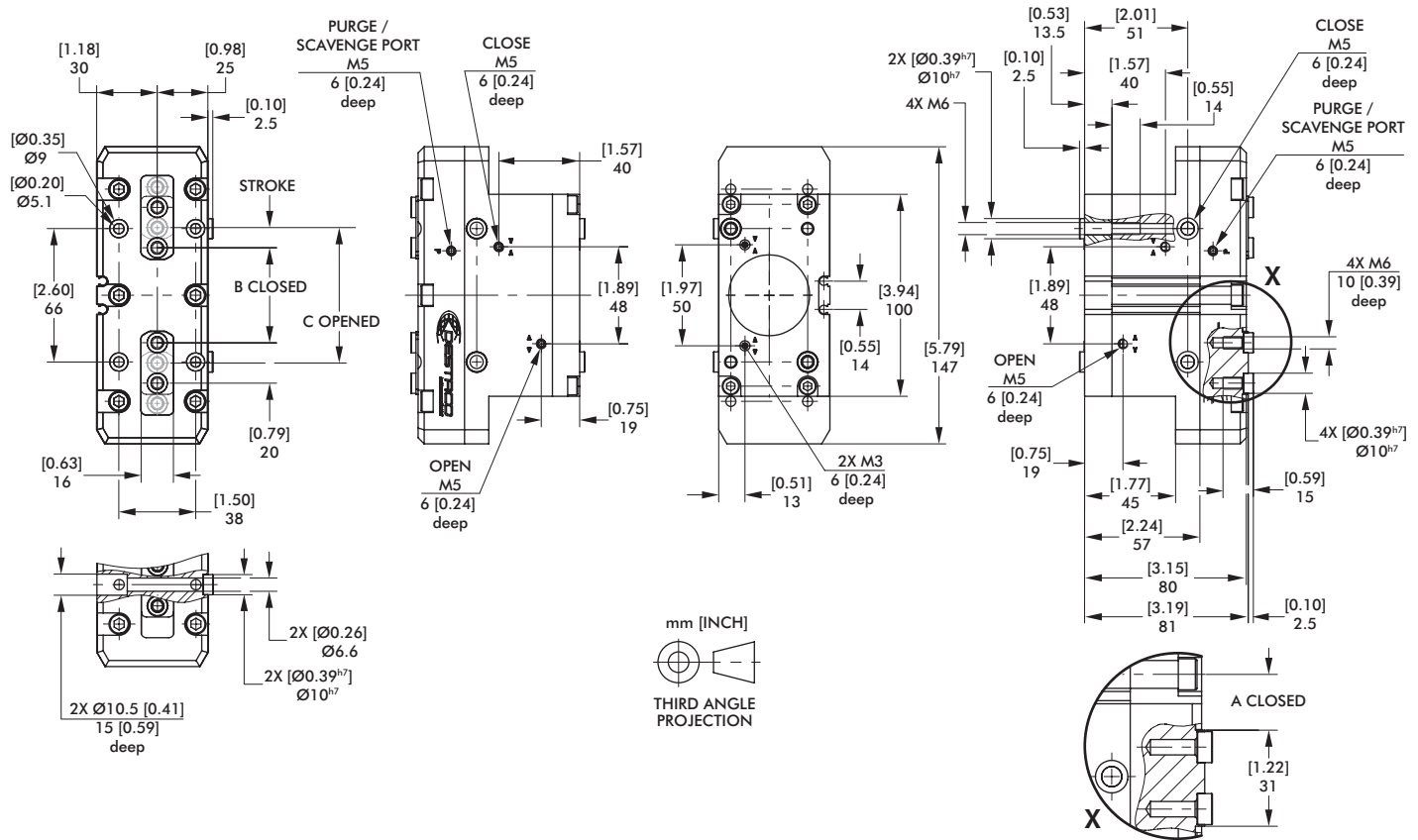
*Capacities are per set of jaws and are not simultaneous



uRDH-3M-L	Static	Dynamic
Maximum Tensile T	1146 N [258 lbs]	127 N [29 lbs]
Maximum Compressive C	1485 N [334 lbs]	127 N [29 lbs]
Maximum Moment M _x	52 Nm [460 in-lbs]	5 Nm [44 in-lbs]
Maximum Moment M _y	66 Nm [584 in-lbs]	6 Nm [53 in-lbs]
Maximum Moment M _z	43 Nm [381 in-lbs]	[53 in-lbs] 6 Nm

*Capacities are per set of jaws and are not simultaneous

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

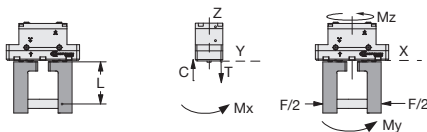
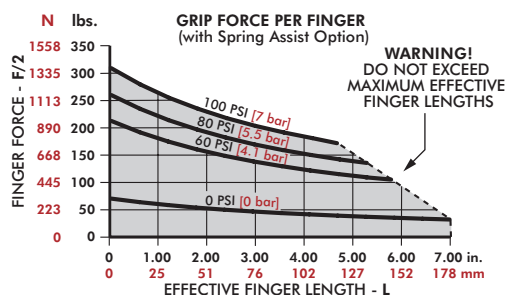


Model	A	B	C	Stroke x 2
uRDH-4M	18 [0.71]	47 [1.85]	57 [2.24]	5 [0.20]
uRDH-4M-L			67 [2.64]	10 [0.39]

Dimensions in mm [in]

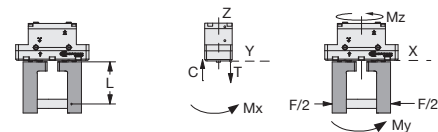
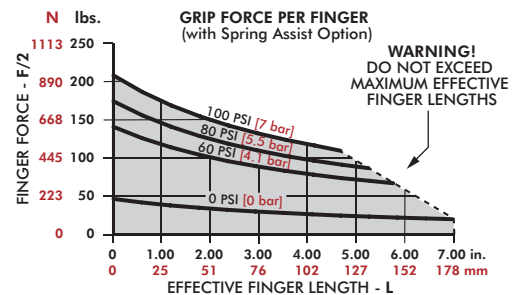
Seal Repair Kits	uRDH-4M
Buna-N Seal Repair Kit	SLKT-uRDH-4M
Viton® Seal Repair Kit	SLKT-uRDH-4M-V

Loading Information



uRDH-4M	Static	Dynamic
Maximum Tensile T	1564 N [352 lbs]	259 N [58 lbs]
Maximum Compressive C	2070 N [465 lbs]	259 N [58 lbs]
Maximum Moment M_x	76 Nm [673 in-lbs]	10 Nm [89 in-lbs]
Maximum Moment M_y	106 Nm [938 in-lbs]	14 Nm [124 in-lbs]
Maximum Moment M_z	70 Nm [620 in-lbs]	14 Nm [124 in-lbs]

†Capacities are per set of jaws and are not simultaneous

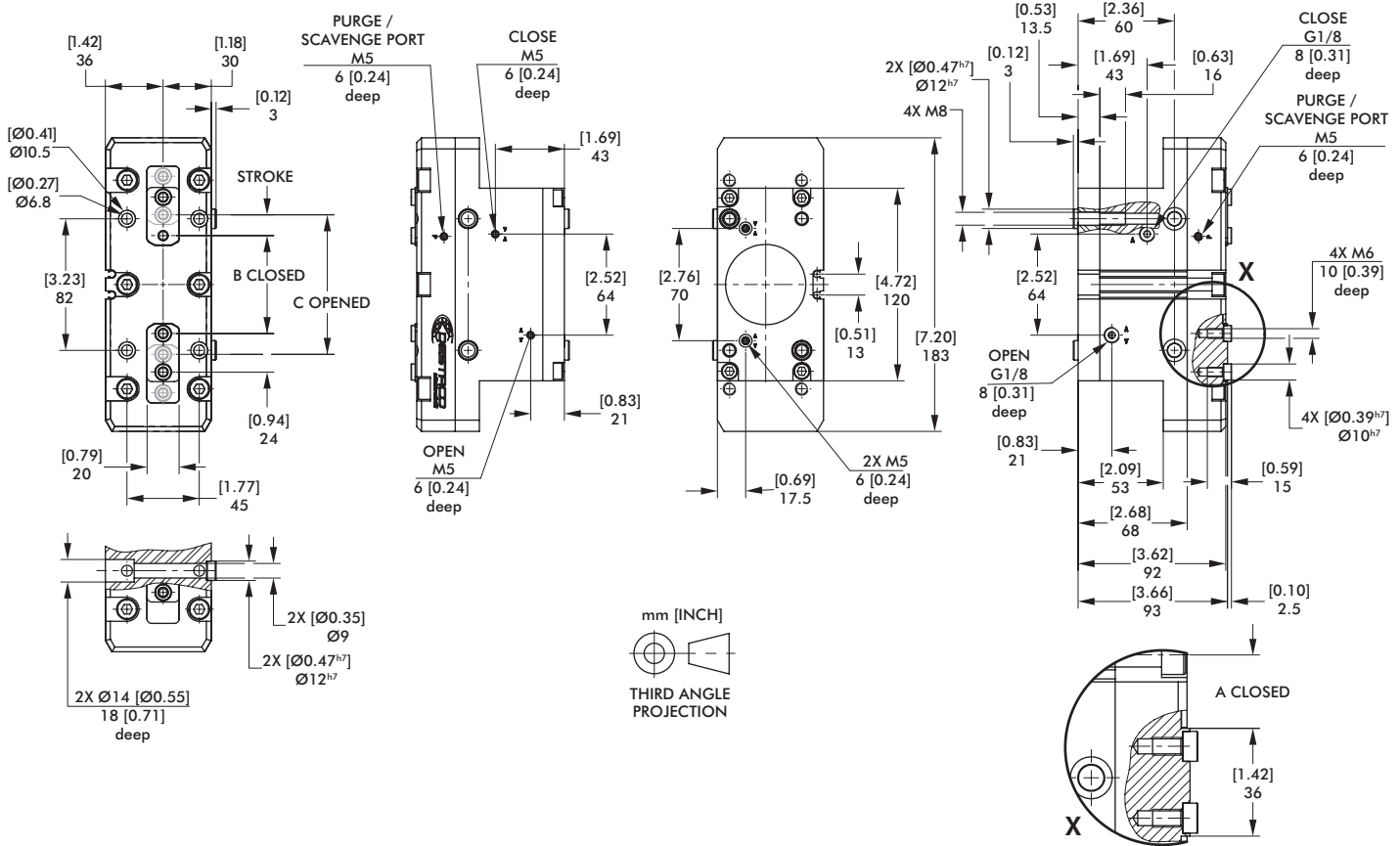


uRDH-4M-L	Static	Dynamic
Maximum Tensile T	1394 N [313 lbs]	168 N [38 lbs]
Maximum Compressive C	1845 N [415 lbs]	168 N [38 lbs]
Maximum Moment M_x	68 Nm [602 in-lbs]	6 Nm [53 in-lbs]
Maximum Moment M_y	84 Nm [743 in-lbs]	8 Nm [71 in-lbs]
Maximum Moment M_z	56 Nm [496 in-lbs]	8 Nm [71 in-lbs]

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

uRDH-5M, -5M-L

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

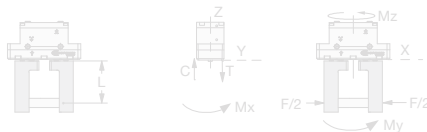
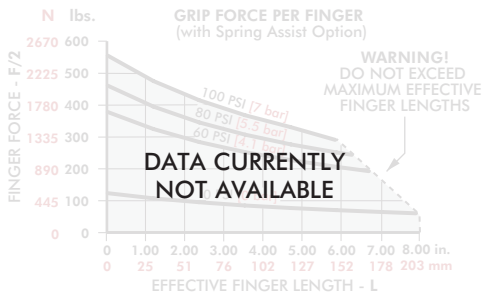


Model	A	B	C	Stroke x 2
uRDH-5M	24,5 [0.96]	61 [2.40]	73 [2.87]	6 [0.24]
uRDH-5M-L			87 [3.43]	13 [0.51]

Dimensions in mm [in]

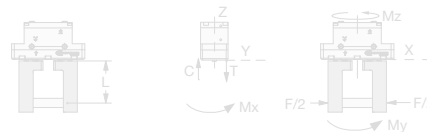
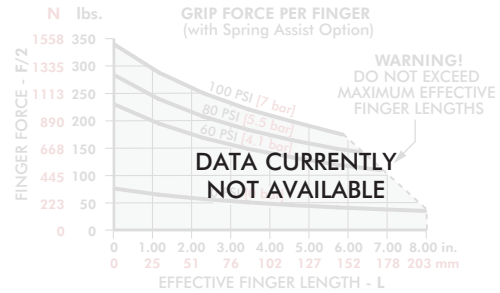
Seal Repair Kits	uRDH-5M
Buna-N Seal Repair Kit	SLKT-uRDH-5M
Viton® Seal Repair Kit	SLKT-uRDH-5M-V

Loading Information



uRDH-5M	Static	Dynamic
Maximum Tensile T	2192 N [493 lbs]	428 N [96 lbs]
Maximum Compressive C	2923 N [657 lbs]	428 N [96 lbs]
Maximum Moment M_x	105 Nm [929 in-lbs]	16 Nm [142 in-lbs]
Maximum Moment M_y	148 Nm [1310 in-lbs]	22 Nm [195 in-lbs]
Maximum Moment M_z	97 Nm [859 in-lbs]	22 Nm [195 in-lbs]

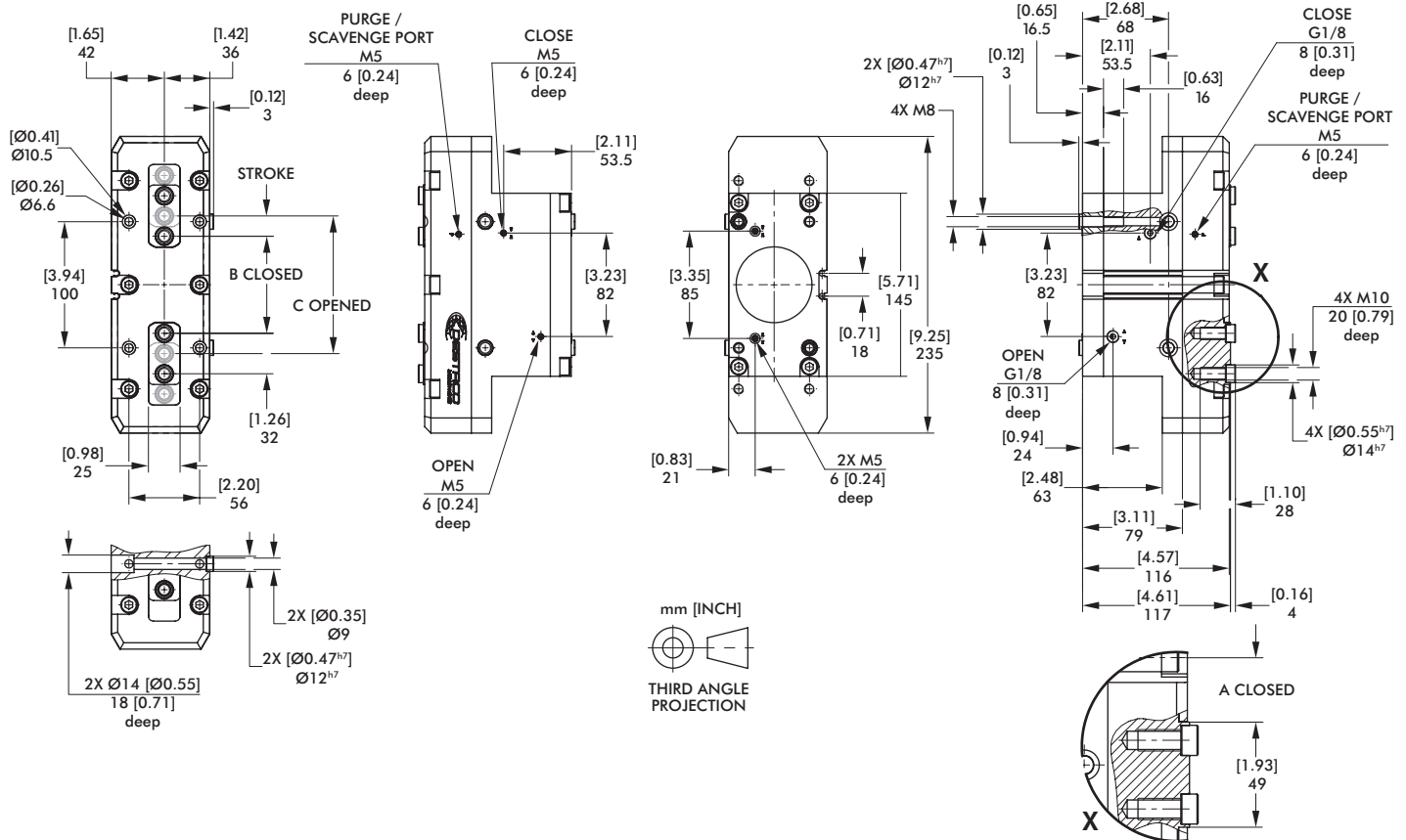
*Capacities are per set of jaws and are not simultaneous



uRDH-5M-L	Static	Dynamic
Maximum Tensile T	1966 N [442 lbs]	278 N [62 lbs]
Maximum Compressive C	2621 N [589 lbs]	278 N [62 lbs]
Maximum Moment M_x	94 Nm [832 in-lbs]	10 Nm [89 in-lbs]
Maximum Moment M_y	119 Nm [1053 in-lbs]	13 Nm [115 in-lbs]
Maximum Moment M_z	78 Nm [690 in-lbs]	13 Nm [115 in-lbs]

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2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

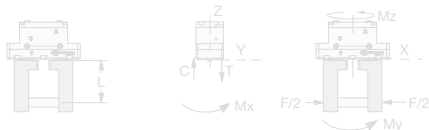
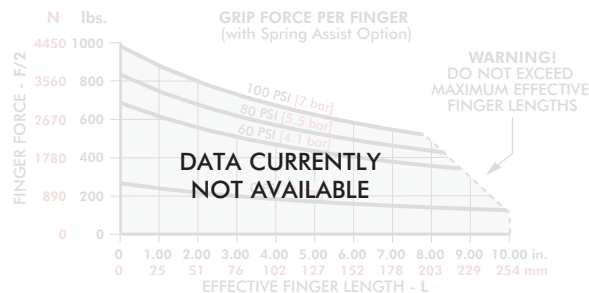


Model	A	B	C	Stroke x 2
uRDH-6M	30 [1.18]	77 [3.03]	93 [3.66]	8 [0.31]
uRDH-6M-L			109 [4.29]	16 [0.63]

Dimensions in mm [in]

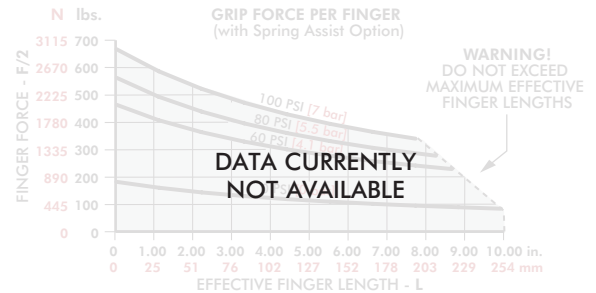
Seal Repair Kits	uRDH-6M
Buna-N Seal Repair Kit	SLKT-uRDH-6M
Viton® Seal Repair Kit	SLKT-uRDH-6M-V

Loading Information



uRDH-6M	Static	Dynamic
Maximum Tensile T	3463 N [779 lbs]	827 N [186 lbs]
Maximum Compressive C	4649 N [1045 lbs]	827 N [186 lbs]
Maximum Moment M_x	136 Nm [1204 in-lbs]	28 Nm [248 in-lbs]
Maximum Moment M_y	197 Nm [1744 in-lbs]	41 Nm [363 in-lbs]
Maximum Moment M_z	130 Nm [1151 in-lbs]	41 Nm [363 in-lbs]

¹Capacities are per set of jaws and are not simultaneous

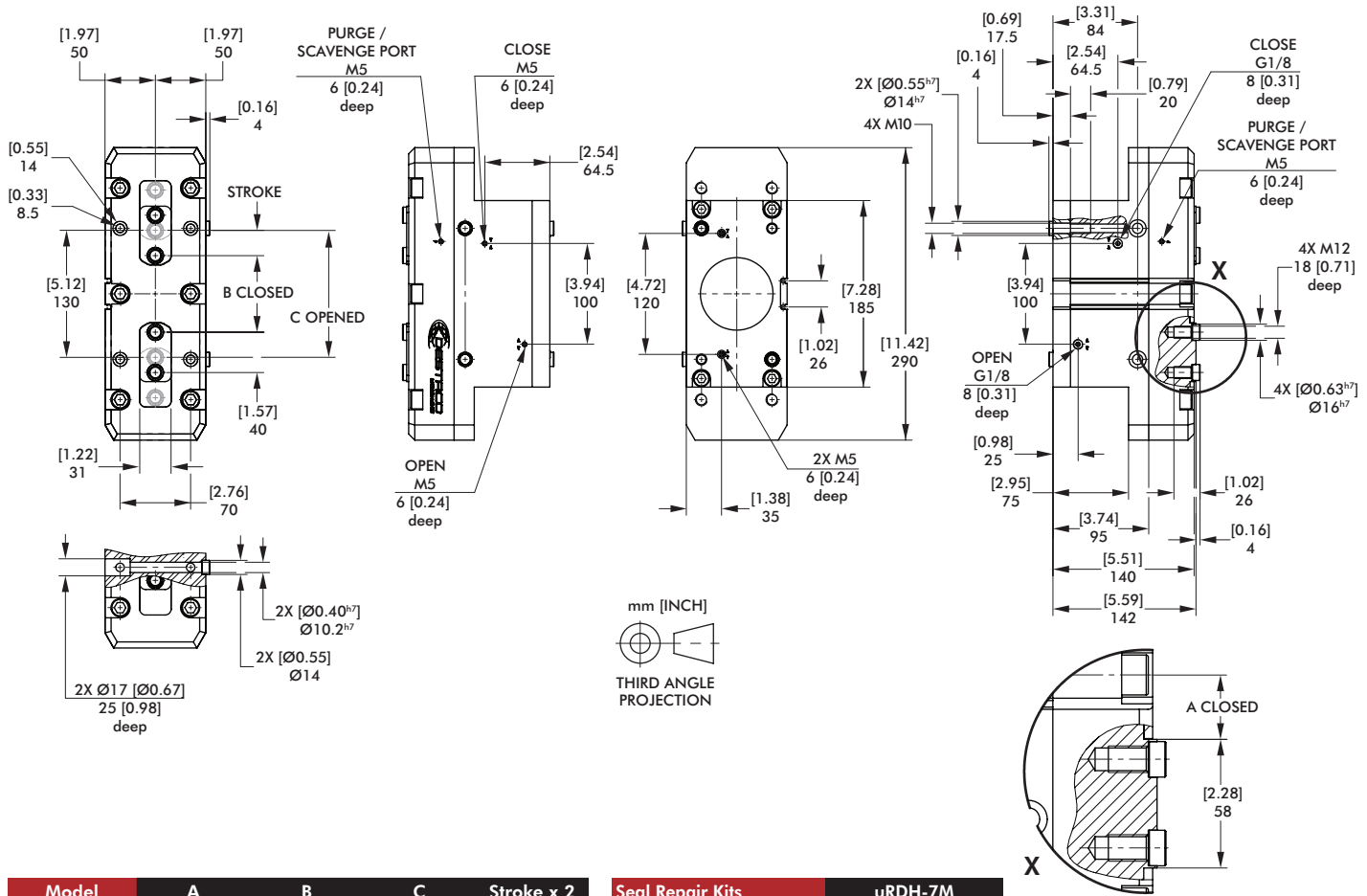


uRDH-6M-L	Static	Dynamic
Maximum Tensile T	3089 N [694 lbs]	537 N [121 lbs]
Maximum Compressive C	4146 N [932 lbs]	537 N [121 lbs]
Maximum Moment M_x	121 Nm [1071 in-lbs]	18 Nm [159 in-lbs]
Maximum Moment M_y	157 Nm [1390 in-lbs]	24 Nm [212 in-lbs]
Maximum Moment M_z	103 Nm [912 in-lbs]	24 Nm [212 in-lbs]

¹Capacities are per set of jaws and are not simultaneous

uRDH-7M, -7M-L

2-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications

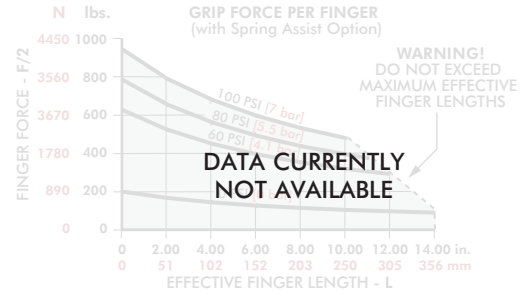
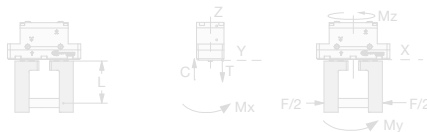
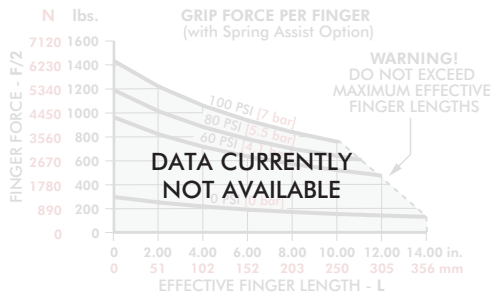


Model	A	B	C	Stroke x 2
uRDH-7M	29 [1.14]	76 [2.99]	104 [4.09]	14 [0.55]
uRDH-7M-L			126 [4.96]	25 [0.98]

Dimensions in mm [in]

Seal Repair Kits	uRDH-7M
Buna-N Seal Repair Kit	SLKT-uRDH-7M
Viton® Seal Repair Kit	SLKT-uRDH-7M-V

Loading Information



uRDH-7M	Static	Dynamic
Maximum Tensile T	4505 N [1013 lbs]	1048 N [236 lbs]
Maximum Compressive C	5938 N [1335 lbs]	1048 N [236 lbs]
Maximum Moment M_x	167 Nm [1478 in-lbs]	36 Nm [319 in-lbs]
Maximum Moment M_y	238 Nm [2106 in-lbs]	51 Nm [451 in-lbs]
Maximum Moment M_z	161 Nm [1425 in-lbs]	51 Nm [451 in-lbs]

*Capacities are per set of jaws and are not simultaneous

uRDH-7M-L	Static	Dynamic
Maximum Tensile T	3911 N [879 lbs]	678 N [152 lbs]
Maximum Compressive C	5155 N [1159 lbs]	678 N [152 lbs]
Maximum Moment M_x	145 Nm [1283 in-lbs]	23 Nm [204 in-lbs]
Maximum Moment M_y	179 Nm [1584 in-lbs]	29 Nm [257 in-lbs]
Maximum Moment M_z	122 Nm [1080 in-lbs]	29 Nm [257 in-lbs]

*Capacities are per set of jaws and are not simultaneous

