

uRTH SERIES

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

Features:

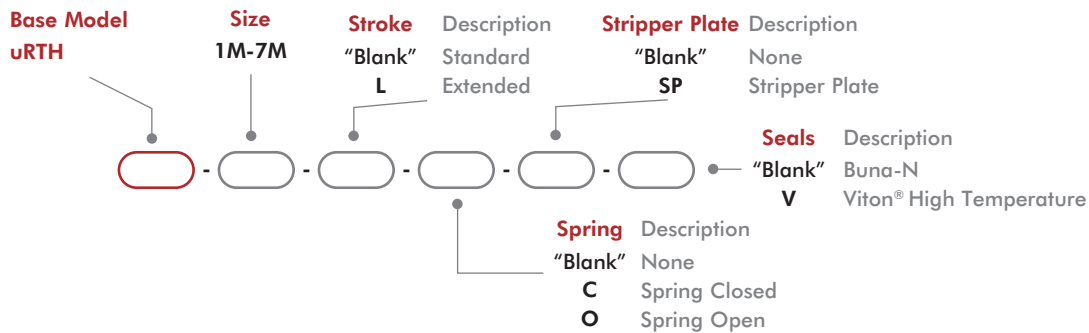
- Multiple sizes available to match grip force and stroke to application needs
- Universal finger and gripper mounting for retrofitting 3rd party devices
- High impact and vibration resistant design for trouble-free performance
- Spring force assist (C/O option) for loss of air pressure
- Scavenge port for clean environments
- Shielded design and purge port for harsh environments
- Multi-position sensing up to 3 locations

Applications:

- Automotive parts handling and assembly components
- Clean room handling of medical devices and food packaging
- Sorting, picking and placing raw materials of metal and plastic for CNC machining



How To Order



Accessories

Sensor Accessories	Model Numbers	Part Number	Qty/Unit
8mm PNP Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	All Models	OHSP-011	1-3†
8mm NPN Magneto Resistive Sensor (90° barrel) w/ M8 Qk. Disc*	All Models	OHSN-011	1-3†
8mm PNP Magneto Resistive Sensor Short Barrel w/ M8 Qk. Disc*	All Models	OHSP-017	1-3†
8mm NPN Magneto Resistive Sensor Short Barrel w/ M8 Qk. Disc*	All Models	OHSN-017	1-3†
M8 Quick Disconnect 2 Meter Cable Length*	All Models	CABL-010	1-3†
M8 Quick Disconnect 5 Meter Cable Length*	All Models	CABL-013	1-3†

Pneumatic Accessories	Model Numbers	Part Number	Qty/Unit
Adjustable Flow Control M5 (90°)	All Models	VLVF-008	1-2
Adjustable Flow Control G1/8 (90°)	uRTH-4M, -5M, -6M, -7M	VLVF-005	1-2
Push-in Fitting M5	All Models	PLFT-037	1-2
Push-in Fitting G1/8	uRTH-4M, -5M, -6M, -7M	PLFT-038	1-2
Push-in Fitting M5 (90°)	All Models	PLFT-041	1-2
Push-in Fitting G1/8 (90°)	uRTH-4M, -5M, -6M, -7M	PLFT-042	1-2

* Sensor and cable sold separately. † Except for uRTH-1, 1-2 Qty/Unit only.

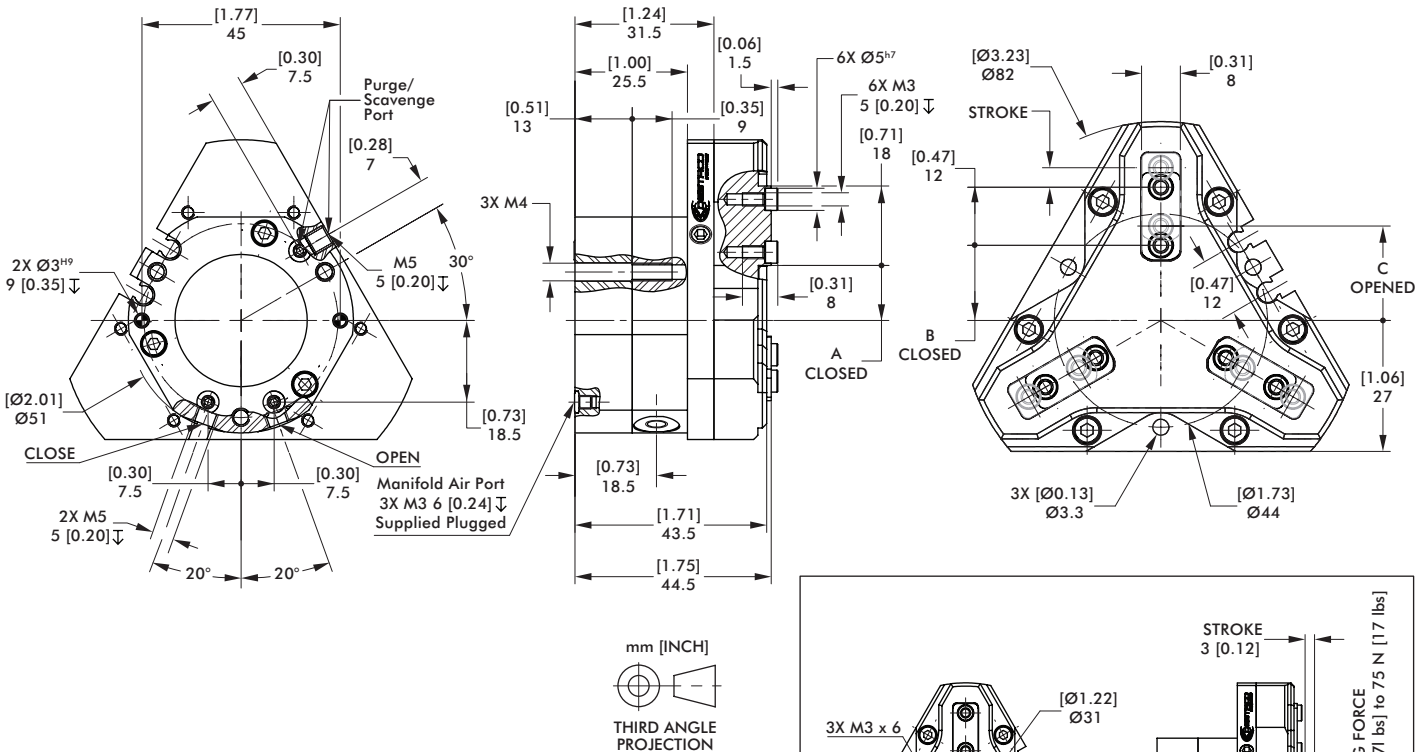
3-Jaw Universal Parallel Grippers | Technical Specifications

Specifications	Units	1M	1M-L	2M	2M-L	3M	3M-L	4M	4M-L
Total Rated Grip Force F	N	682	457	1238	830	2078	1388	3644	2457
@ 100 psi [7 bar] w/o Spring Assist	[lbs]	[153]	[103]	[278]	[187]	[467]	[312]	[819]	[552]
Total Rated Grip Force F	N	889	595	1490	1011	2627	1752	4562	3071
@ 100 psi [7 bar] w/ Spring Assist	[lbs]	[200]	[134]	[335]	[227]	[591]	[394]	[1026]	[690]
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]	0.32 [0.71]		0.61 [1.34]		1.21 [2.67]		2.19 [4.83]	
Pressure Range w/o Spring	bar [psi]	2-7 [30-100]							
Pressure Range w/ Spring	bar [psi]	4-7 [60-100]		3-7 [45-100]		3.5-7 [50-100]		3-7 [45-100]	
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]	6.5 [0.40]		17 [1.04]		37 [2.26]		80 [4.88]	
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		0.10	
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]	13 [0.51]	26 [1.02]	16 [0.63]	32 [1.26]	28 [1.10]	50 [1.97]
Weight	kg [lbs]	4.2 [9.26]		8.3 [18.30]		15.9 [35.05]	
Pressure Range w/o Spring	bar [psi]	2-7 [30-100]					
Pressure Range w/ Spring	bar [psi]	3-7 [45-100]		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]	180 [10.98]		355 [21.66]		768 [48.87]	
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.	0.19		0.24		0.85	
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					

uRTH-1M, -1M-L

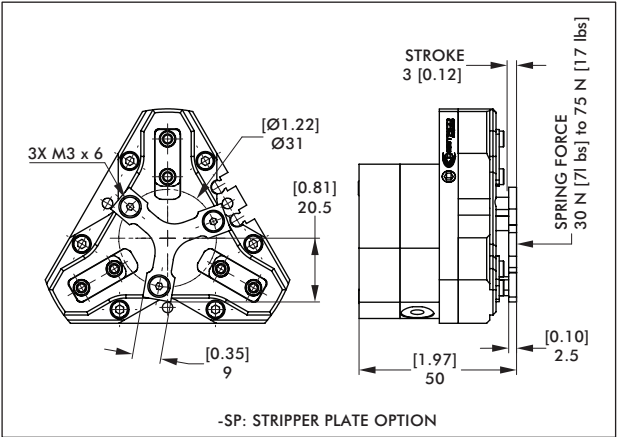
3-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications



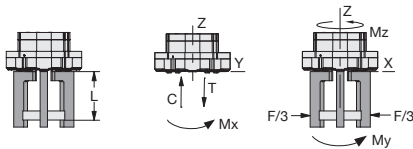
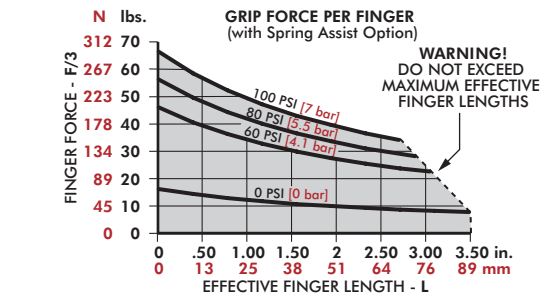
Model	A	B	C	Stroke x 2
uRTH-1M	14 [0.55]	17 [0.67]	19 [0.75]	2 [0.08]
uRTH-1M-L	12.5 [0.49]	15.5 [0.61]	19.5 [0.77]	4 [0.16]

Dimensions in mm [in]

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

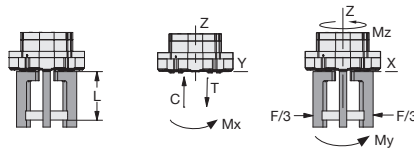
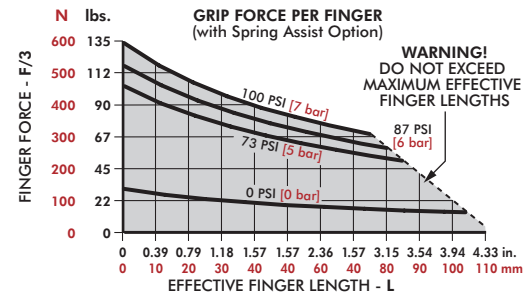


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uRTH-1M	Static	Dynamic
Maximum Tensile T	810 N [182 lbs]	89 N [20 lbs]
Maximum Compressive C	1060 N [238 lbs]	89 N [20 lbs]
Maximum Moment M _x	22 Nm [195 in-lbs]	2 Nm [18 in-lbs]
Maximum Moment M _y	28 Nm [248 in-lbs]	3 Nm [27 in-lbs]
Maximum Moment M _z	18 Nm [159 in-lbs]	3 Nm [27 in-lbs]

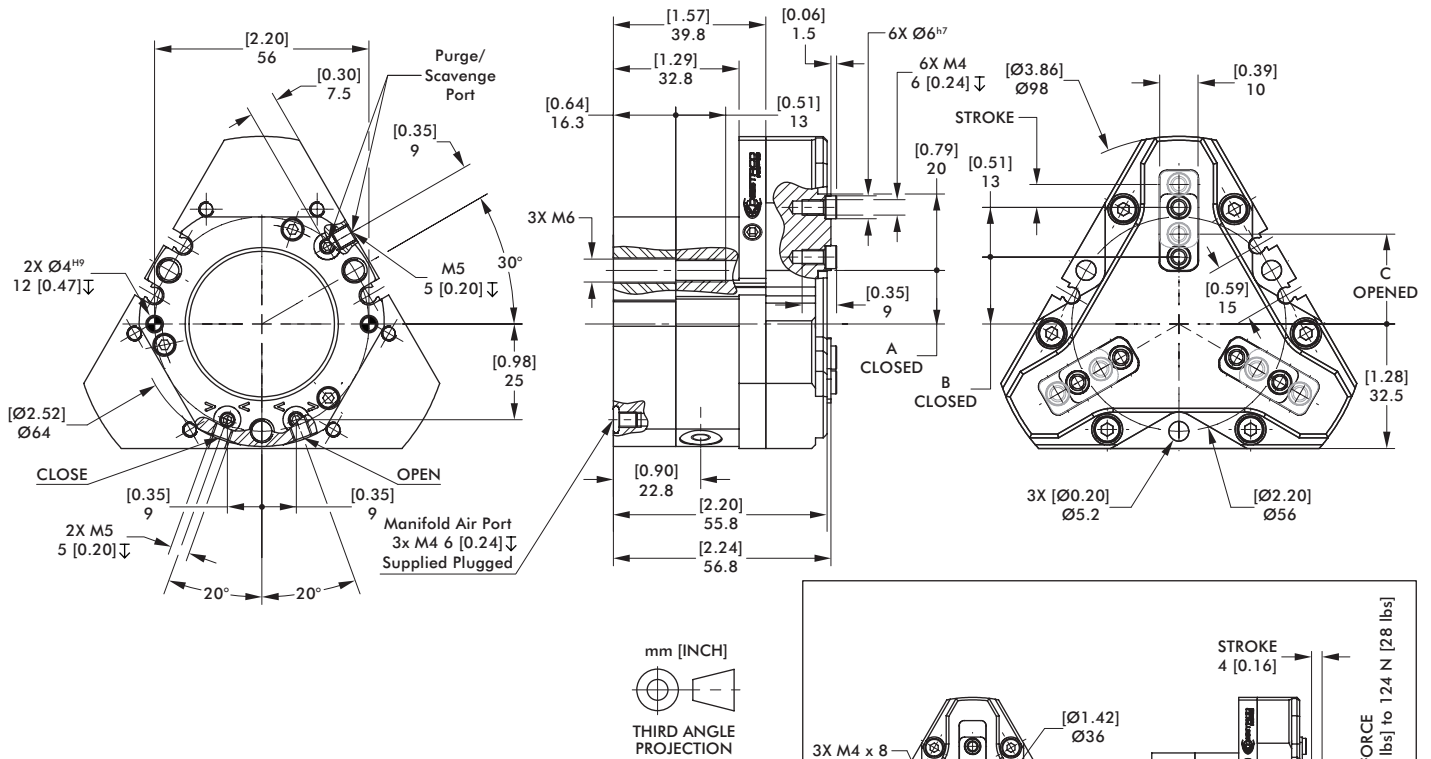
*Capacities are per set of jaws and are not simultaneous



uRTH-1M-L	Static	Dynamic
Maximum Tensile T	730 N [164 lbs]	57 N [13 lbs]
Maximum Compressive C	960 N [216 lbs]	57 N [13 lbs]
Maximum Moment M _x	20 Nm [177 in-lbs]	1 Nm [9 in-lbs]
Maximum Moment M _y	23 Nm [204 in-lbs]	1 Nm [9 in-lbs]
Maximum Moment M _z	15 Nm [133 in-lbs]	1 Nm [9 in-lbs]

*Capacities are per set of jaws and are not simultaneous

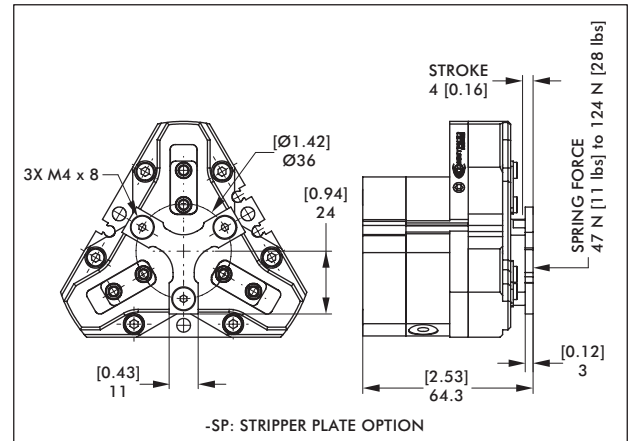
3-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications



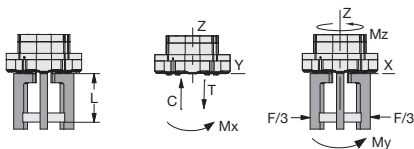
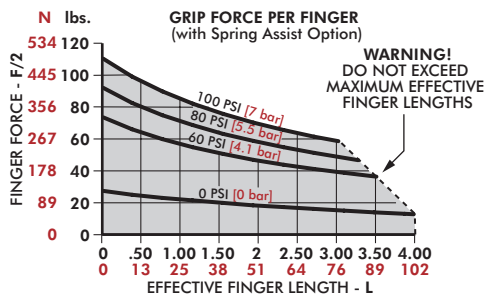
Model	A	B	C	Stroke x 2
uRTH-2M	14 [0.55]	17.5 [0.69]	20.5 [0.81]	3 [0.12]
uRTH-2M-L			23.5 [0.93]	6 [0.24]

Dimensions in mm [in]

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

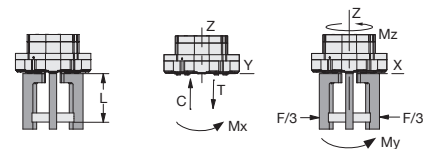
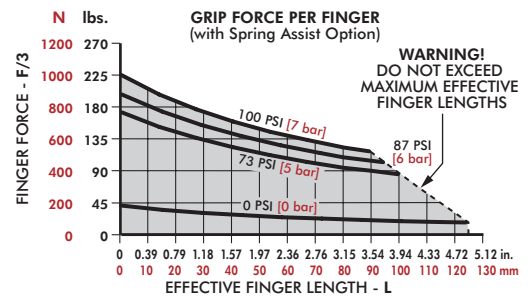


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uRTH-2M	Static	Dynamic
Maximum Tensile T	1200 N [270 lbs]	129 N [29 lbs]
Maximum Compressive C	1560 N [351 lbs]	129 N [29 lbs]
Maximum Moment M_x	45 Nm [398 in-lbs]	4 Nm [35 in-lbs]
Maximum Moment M_y	64 Nm [566 in-lbs]	6 Nm [53 in-lbs]
Maximum Moment M_z	41 Nm [363 in-lbs]	6 Nm [53 in-lbs]

*Capacities are per set of jaws and are not simultaneous

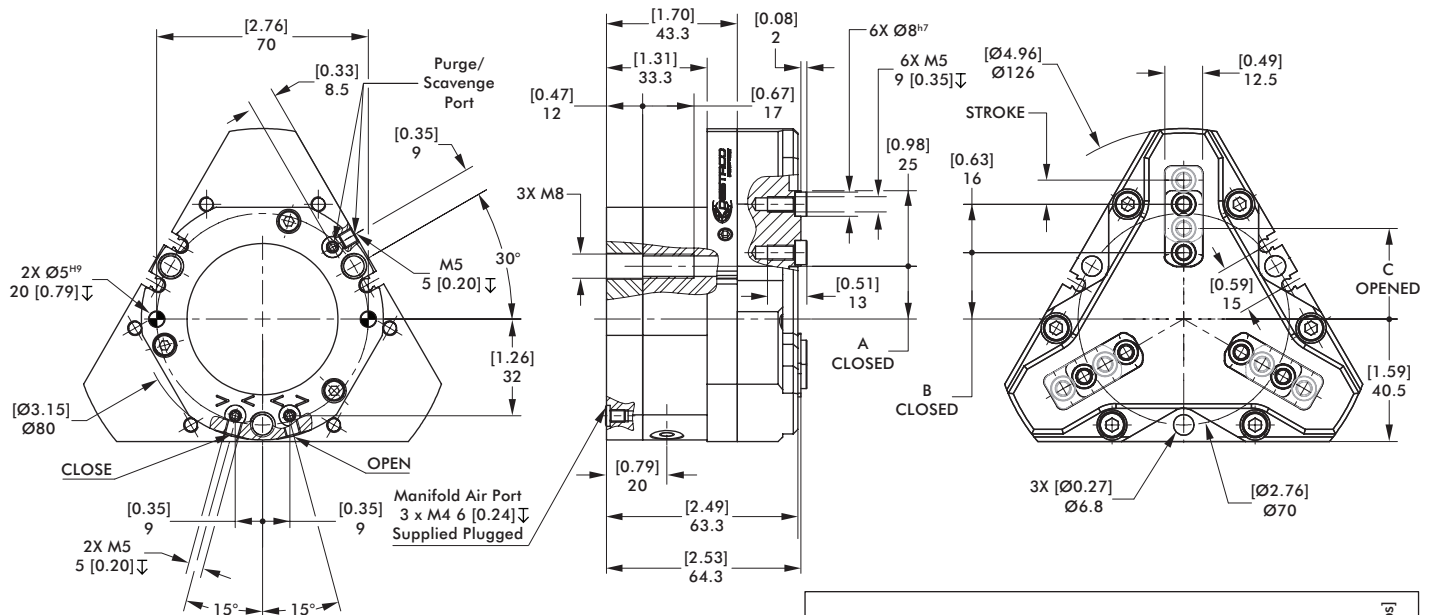


uRTH-2M-L	Static	Dynamic
Maximum Tensile T	1080 N [243 lbs]	84 N [19 lbs]
Maximum Compressive C	1400 N [315 lbs]	84 N [19 lbs]
Maximum Moment M_x	40 Nm [354 in-lbs]	3 Nm [27 in-lbs]
Maximum Moment M_y	52 Nm [460 in-lbs]	4 Nm [35 in-lbs]
Maximum Moment M_z	33 Nm [292 in-lbs]	4 Nm [35 in-lbs]

*Capacities are per set of jaws and are not simultaneous

uRTH-3M, -3M-L

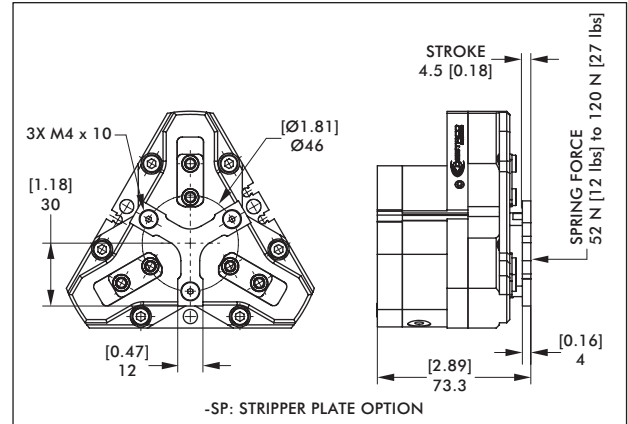
3-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications



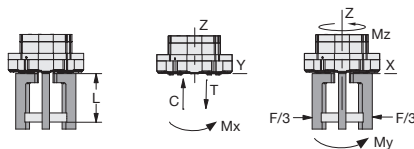
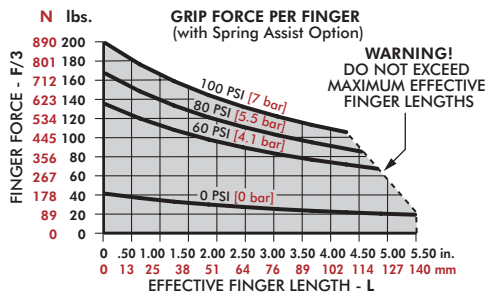
Model	A	B	C	Stroke x 2
uRTH-3M	17.5 [0.69]	22 [0.87]	26 [1.02]	4 [0.16]
uRTH-3M-L			30 [1.18]	8 [0.31]

Dimensions in mm [in]

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

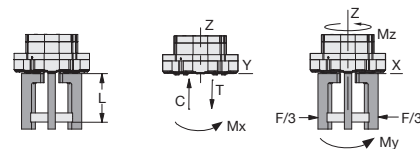
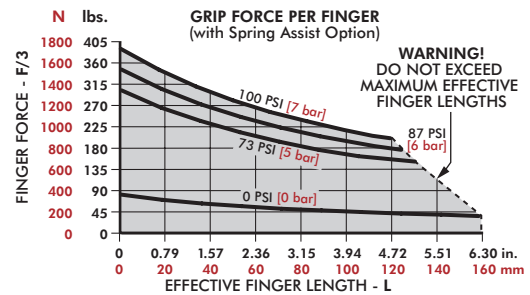


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uRTH-3M	Static	Dynamic
Maximum Tensile T	1680 N [378 lbs]	302 N [68 lbs]
Maximum Compressive C	2180 N [490 lbs]	302 N [68 lbs]
Maximum Moment M _x	72 Nm [637 in-lbs]	11 Nm [97 in-lbs]
Maximum Moment M _y	102 Nm [903 in-lbs]	16 Nm [142 in-lbs]
Maximum Moment M _z	66 Nm [584 in-lbs]	16 Nm [142 in-lbs]

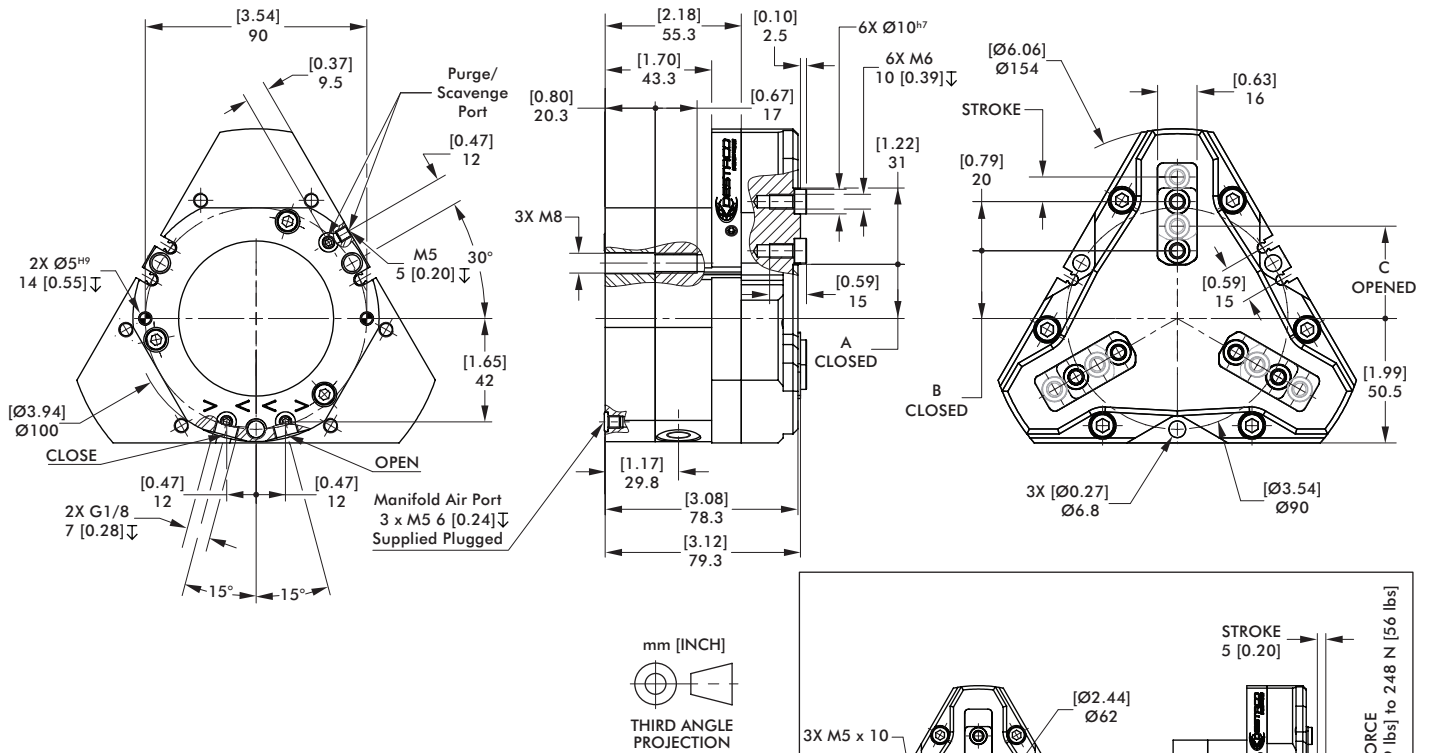
*Capacities are per set of jaws and are not simultaneous



uRTH-3M-L	Static	Dynamic
Maximum Tensile T	1500 N [337 lbs]	197 N [44 lbs]
Maximum Compressive C	1940 N [436 lbs]	197 N [44 lbs]
Maximum Moment M _x	64 Nm [566 in-lbs]	7 Nm [62 in-lbs]
Maximum Moment M _y	81 Nm [717 in-lbs]	9 Nm [80 in-lbs]
Maximum Moment M _z	53 Nm [469 in-lbs]	9 Nm [80 in-lbs]

*Capacities are per set of jaws and are not simultaneous

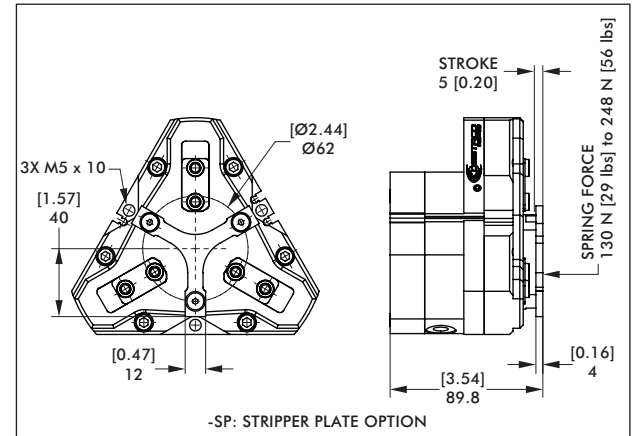
3-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications



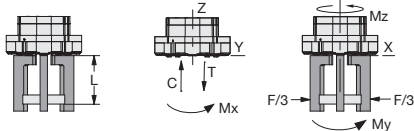
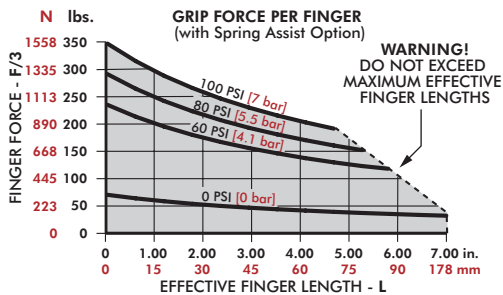
Model	A	B	C	Stroke x 2
uRTH-4M	22 [0.87]	27.5 [1.08]	32.5 [1.28]	5 [0.20]
uRTH-4M-L			37.5 [1.48]	10 [0.39]

Dimensions in mm [in]

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

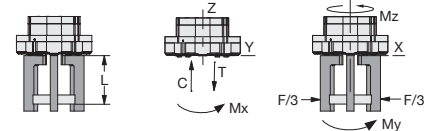
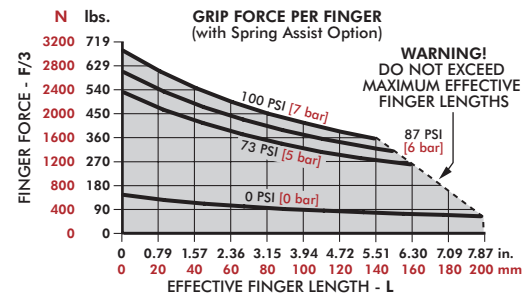


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uRTH-4M	Static	Dynamic
Maximum Tensile T	2110 N [474 lbs]	425 N [96 lbs]
Maximum Compressive C	2790 N [627 lbs]	425 N [96 lbs]
Maximum Moment M_x	92 Nm [814 in-lbs]	16 Nm [142 in-lbs]
Maximum Moment M_y	182 Nm [1133 in-lbs]	22 Nm [195 in-lbs]
Maximum Moment M_z	84 Nm [734 in-lbs]	22 Nm [195 in-lbs]

*Capacities are per set of jaws and are not simultaneous

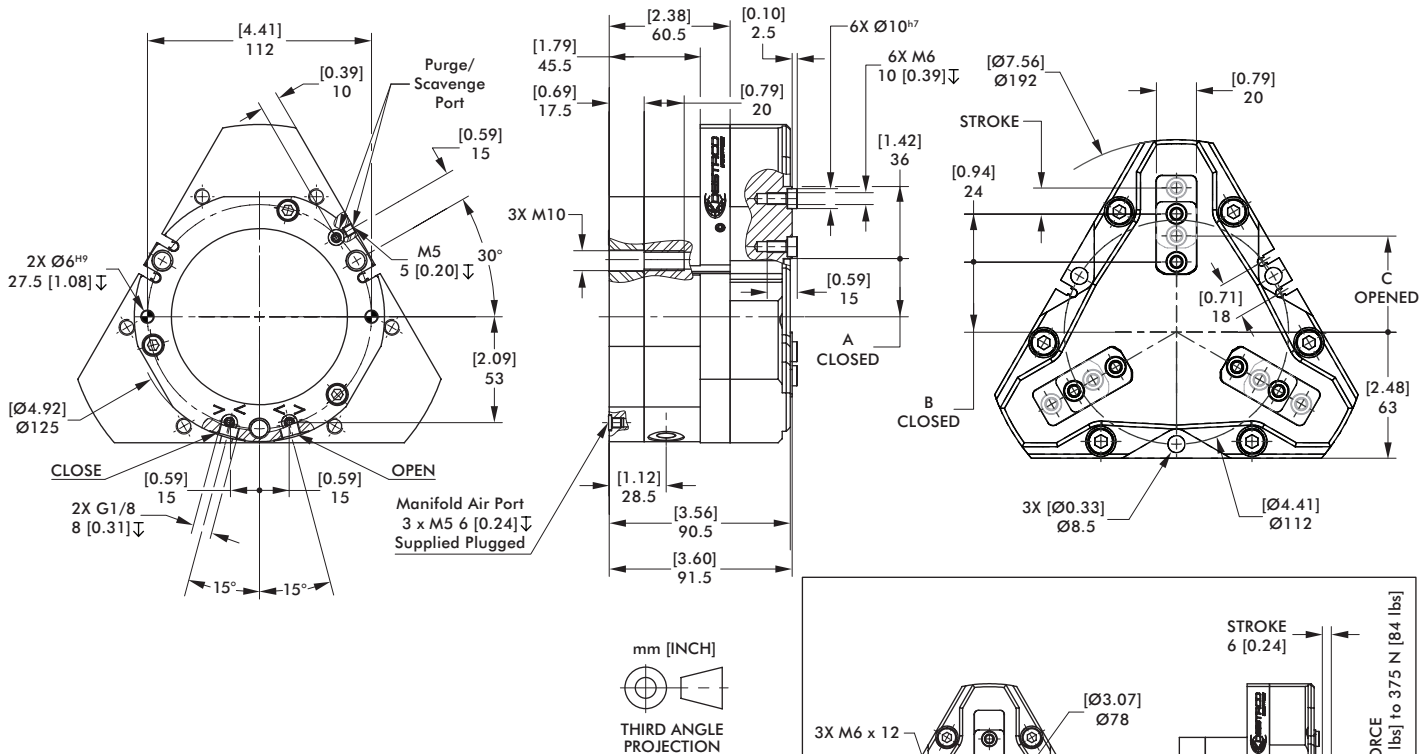


uRTH-4M-L	Static	Dynamic
Maximum Tensile T	1880 N [423 lbs]	275 N [62 lbs]
Maximum Compressive C	2490 N [560 lbs]	275 N [62 lbs]
Maximum Moment M_x	82 Nm [726 in-lbs]	10 Nm [89 in-lbs]
Maximum Moment M_y	102 Nm [903 in-lbs]	13 Nm [115 in-lbs]
Maximum Moment M_z	67 Nm [593 in-lbs]	13 Nm [115 in-lbs]

*Capacities are per set of jaws and are not simultaneous

uRTH-5M, -5M-L

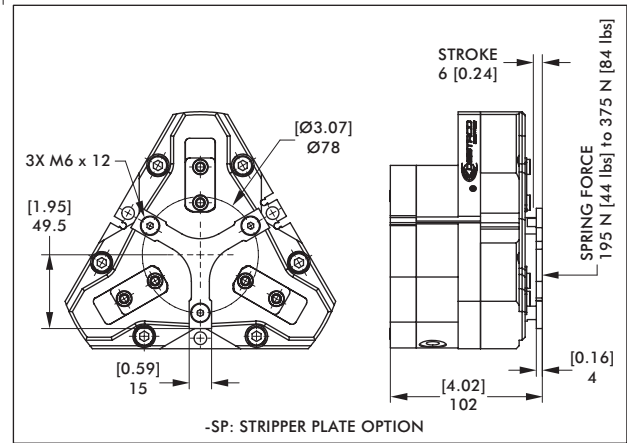
3-Jaw Universal Parallel Grippers | Dimensions and Technical Specifications



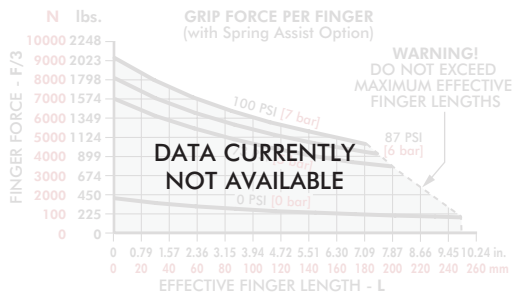
Model	A	B	C	Stroke x 2
uRTH-5M	29 [1.14]	35 [1.38]	41.5 [1.63]	6.5 [0.26]
uRTH-5M-L			48 [1.89]	13 [0.51]

Dimensions in mm [in]

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

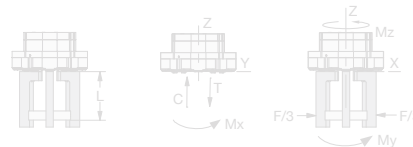
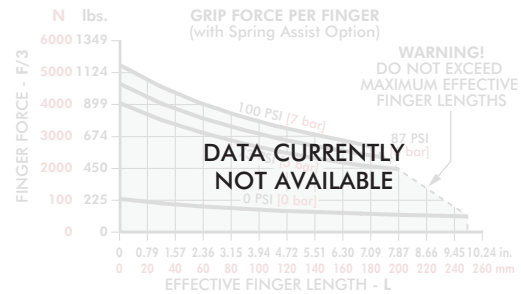


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uRTH-5M	Static	Dynamic
Maximum Tensile T	2990 N [672 lbs]	674 N [152 lbs]
Maximum Compressive C	3980 N [895 lbs]	674 N [152 lbs]
Maximum Moment M_x	127 Nm [1124 in-lbs]	25 Nm [221 in-lbs]
Maximum Moment M_y	179 Nm [1584 in-lbs]	35 Nm [310 in-lbs]
Maximum Moment M_z	117 Nm [1036 in-lbs]	35 Nm [310 in-lbs]

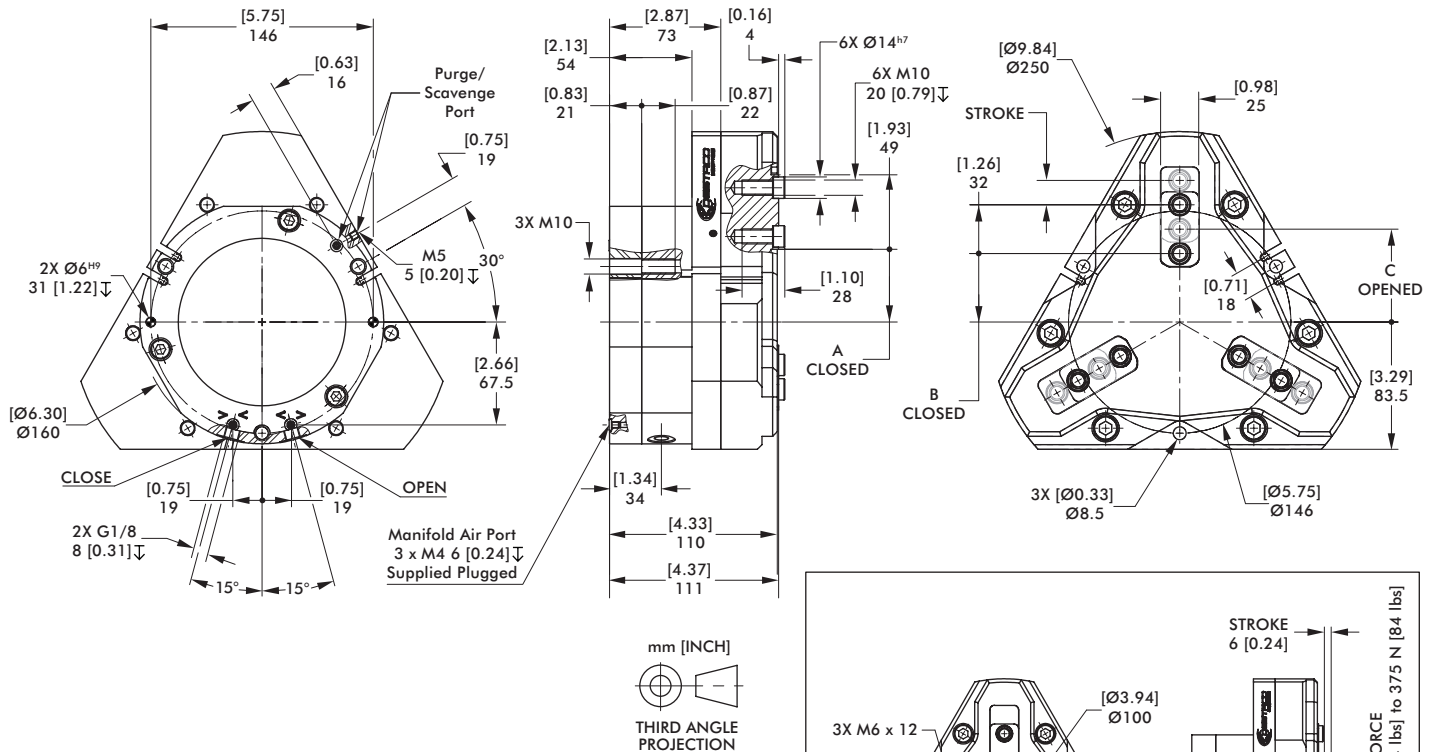
*Capacities are per set of jaws and are not simultaneous



uRTH-5M-L	Static	Dynamic
Maximum Tensile T	2680 N [602 lbs]	432 N [97 lbs]
Maximum Compressive C	3570 N [803 lbs]	432 N [97 lbs]
Maximum Moment M_x	114 Nm [1009 in-lbs]	16 Nm [142 in-lbs]
Maximum Moment M_y	144 Nm [1275 in-lbs]	20 Nm [177 in-lbs]
Maximum Moment M_z	94 Nm [832 in-lbs]	20 Nm [177 in-lbs]

*Capacities are per set of jaws and are not simultaneous

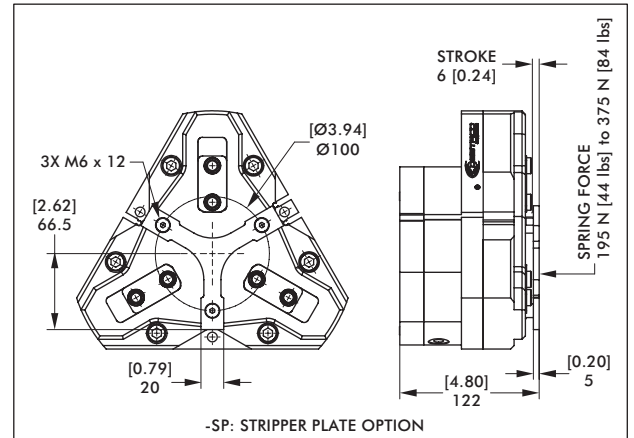
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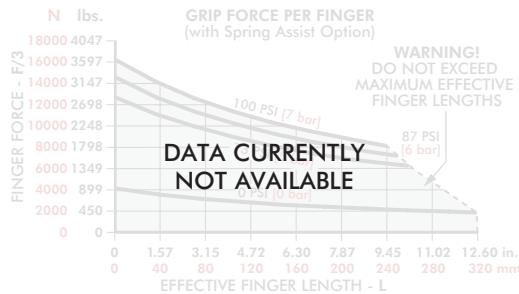
Model	A	B	C	Stroke x 2
uRTH-6M	36.5 [1.44]	45 [1.77]	53 [2.09]	8 [0.31]
uRTH-6M-L			61 [2.40]	16 [0.63]

Dimensions in mm [in]

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

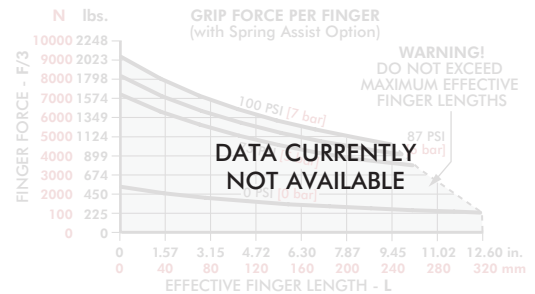


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uRTH-6M	Static	Dynamic
Maximum Tensile T	4320 N [971 lbs]	1315 N [296 lbs]
Maximum Compressive C	5810 N [1306 lbs]	1315 N [296 lbs]
Maximum Moment M_x	172 Nm [1522 in-lbs]	45 Nm [398 in-lbs]
Maximum Moment M_y	250 Nm [2213 in-lbs]	65 Nm [575 in-lbs]
Maximum Moment M_z	164 Nm [1452 in-lbs]	65 Nm [575 in-lbs]

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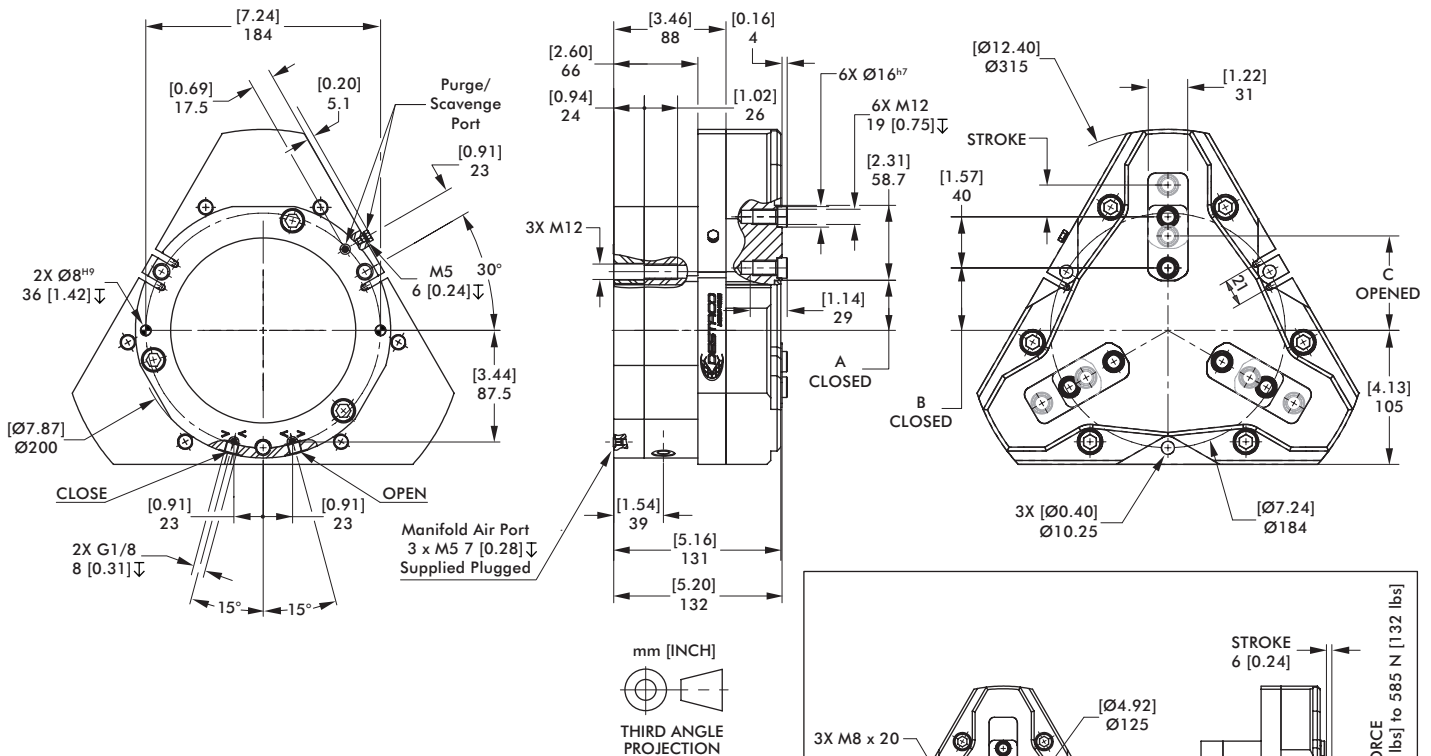


uRTH-6M-L	Static	Dynamic
Maximum Tensile T	3860 N [868 lbs]	852 N [192 lbs]
Maximum Compressive C	5180 N [1165 lbs]	852 N [192 lbs]
Maximum Moment M_x	154 Nm [1363 in-lbs]	29 Nm [257 in-lbs]
Maximum Moment M_y	199 Nm [1761 in-lbs]	37 Nm [327 in-lbs]
Maximum Moment M_z	131 Nm [1159 in-lbs]	37 Nm [327 in-lbs]

*Capacities are per set of jaws and are not simultaneous

uRTH-7M, -7M-L

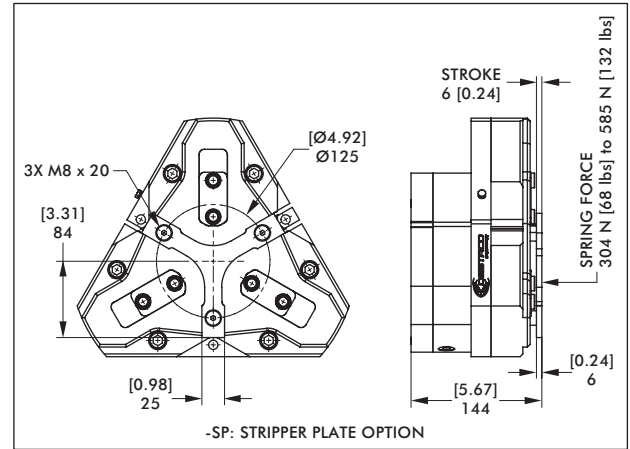
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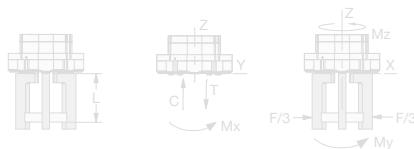
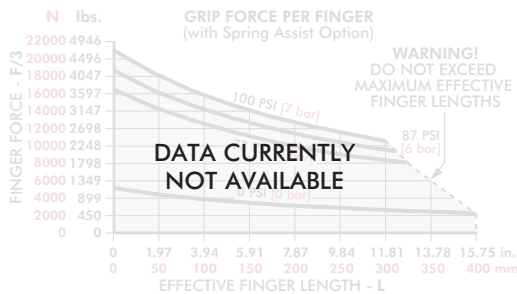
Model	A	B	C	Stroke x 2
uRTH-7M	39.3 [1.55]	48.3 [1.90]	62.3 [2.45]	14 [0.55]
uRTH-7M-L		49 [1.93]	74 [2.91]	25 [0.98]

Dimensions in mm [in]

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

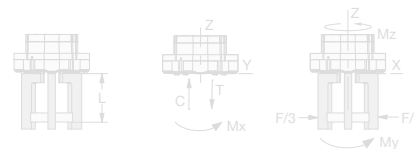
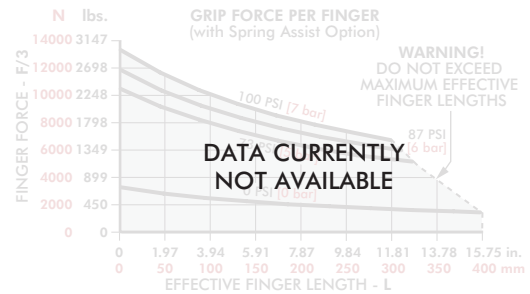


Loading Information



uRTH-7M	Static	Dynamic
Maximum Tensile T	5400 N [1214 lbs]	1763 N [396 lbs]
Maximum Compressive C	7120 N [1601 lbs]	1763 N [396 lbs]
Maximum Moment M_x	215 Nm [1903 in-lbs]	60 Nm [531 in-lbs]
Maximum Moment M_y	305 Nm [2699 in-lbs]	86 Nm [761 in-lbs]
Maximum Moment M_z	208 Nm [1841 in-lbs]	86 Nm [761 in-lbs]

*Capacities are per set of jaws and are not simultaneous



uRTH-7M-L	Static	Dynamic
Maximum Tensile T	4690 N [1054 lbs]	1141 N [257 lbs]
Maximum Compressive C	6180 N [1389 lbs]	1141 N [257 lbs]
Maximum Moment M_x	186 Nm [1646 in-lbs]	39 Nm [345 in-lbs]
Maximum Moment M_y	230 Nm [2036 in-lbs]	48 Nm [425 in-lbs]
Maximum Moment M_z	156 Nm [1381 in-lbs]	48 Nm [425 in-lbs]

*Capacities are per set of jaws and are not simultaneous

