

WILKERSON®

Richland, MI 49083

9CW-CH-271
Microlok Fittings

ISSUED: August, 2002

Microlok Fittings



Table of Contents

Advantages, Assembly, Ordering Information 4

62ML, 62MLBH, 66ML, 66MLBH 5
(Unions, Bulkhead Unions, Female Connectors, Female Bulkheads)

W68ML, 68ML, W68MLR, 68MLR, 362ML 6
(Male Connectors, Round Body Male Connectors, Union Y Connectors)

364ML, 365ML, W368ML, 368ML 7
(Union Tees, Unions Elbows, Union Y Male Connectors)

W369ML, 369ML, W369MLX, 369MLX 8
(Male Elbow Swivel, Extended Male Elbow Swivel)

W371ML, 371ML, W372ML, 372ML 9
(Male Run Tee Swivel, Male Branch Tee Swivel)

Offer of Sale 11



Advantages

Ready-to-use miniature one piece fitting for use with most thermoplastic and soft copper tubing. This fitting was designed to meet the needs of the motion control industry where fast assembly, disassembly and reassembly is important. No special tools needed for assembly; just insert the tubing until it bottoms. Microlok is designed to be used without a tube support to provide full flow through the tubing. The collet design of Microlok grips the tubing securely to provide tubing retention. The Microlok fitting comes in externally threaded hex and round straight fitting body styles and in a range of shaped configurations. Microlok straight fittings have a nickel plated brass body and shaped fittings have a composite body with nickel plated brass componentry. Microlok external pipe threads come with a pre-applied white acrylic sealant. Positional external pipe threaded ends are featured on shapes for installation in compact areas and for precise positioning. Microlok should not be used for live swivel applications.

Materials

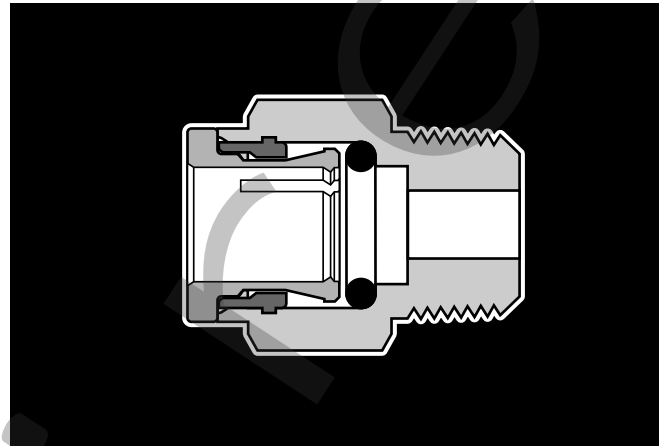
Microlok Straights: CA360, CA345 (nickel plated)
 Microlok Shape Bodies: Reinforced Polyphenylene Oxide (PPO)
 O-Ring: Nitrile (other compounds available on request)
 Collet: Nickel Plated Brass

Applications

Use with Series "U", "LU" and "HU" polyurethane tubing, series "E" polyethylene tubing or series "N" nylon tubing. Microlok was designed to meet the needs of the motion control industry. Consult the factory with any questions regarding special product applications. All applications should be carefully tested through the range of conditions which may be encountered prior to use.

Working Pressure and Temperature Ranges

32° to +150°F at up to 150 PSI depending on tubing being used. Vacuum applications are dependent upon temperature and type of tubing used.



Assembly Instructions

1. Cut thermoplastic tubing squarely, using tube cutter. Metal tubing should be cut squarely and free of burrs. Be certain the port or mating part is clean and free of debris.
2. Insert tubing into fitting until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push the collet against the body and remove tubing.

Order

By part number and name.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type fitting. The second series of numbers describe the size.

Note: 0 indicates 10-32 UNF Thread

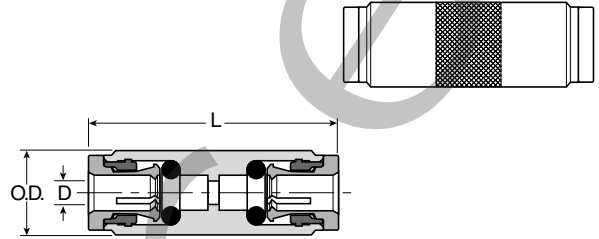
Example	W	68	ML	-4	-2
White Acrylic	_____	_____	_____	_____	_____
Thread Sealant	_____	_____	_____	_____	_____
Male Connector	_____	_____	_____	_____	_____
Microlok	_____	_____	_____	_____	_____
1/4" (4/16) Tube O.D.	_____	_____	_____	_____	_____
1/8" (2/16) Pipe Thread	_____	_____	_____	_____	_____

Sizes

Tube sizes are determined by the number of sixteenths of an inch in the tube O.D..

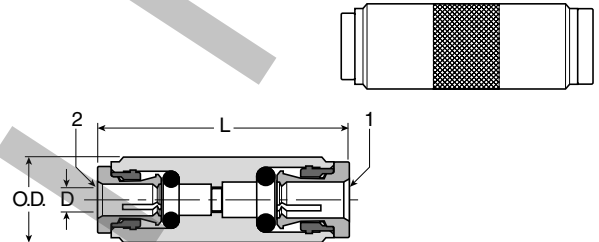
Equal Union 62ML

Part No.	Tube Size	O.D.	L	Flow Dia. D.
62ML-2	1/8	.34	1.02	.093
62ML-5/32	5/32	.38	1.03	.110
62ML-4	1/4	.47	1.10	.190
62ML-6	3/8	.63	1.32	.312
62ML-8	1/2	.75	1.43	.406



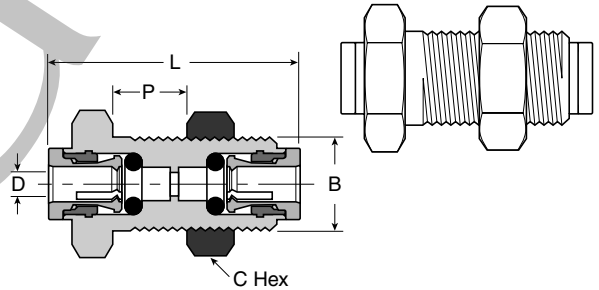
Unequal Union 62ML

Part No.	Tube Size 1	Tube Size 2	O.D.	L	Flow Dia. D.
62ML-5/32-2	5/32	1/8	.38	1.03	.093
62ML-4-2	1/4	1/8	.47	1.09	.093
62ML-4-5/32	1/4	5/32	.47	1.09	.110
62ML-4-6	1/4	3/8	.63	1.23	.190
62ML-6-8	3/8	1/2	.75	1.37	.312



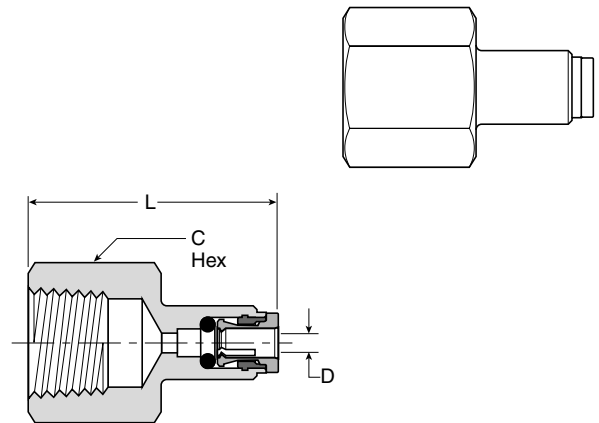
Bulkhead Union 62MLBH

Part No.	Tube Size	B	C Hex	P Max.	L	Flow Dia. D.
62MLBH-2	1/8	3/8	1/8	.51	1.02	.093
62MLBH-5/32	5/32	7/16	1/2	.51	1.03	.110
62MLBH-4	1/4	1/2	5/8	.55	1.10	.190
62MLBH-6	3/8	5/8	3/4	.55	1.32	.312
62MLBH-8	1/2	3/4	7/8	.60	1.43	.406



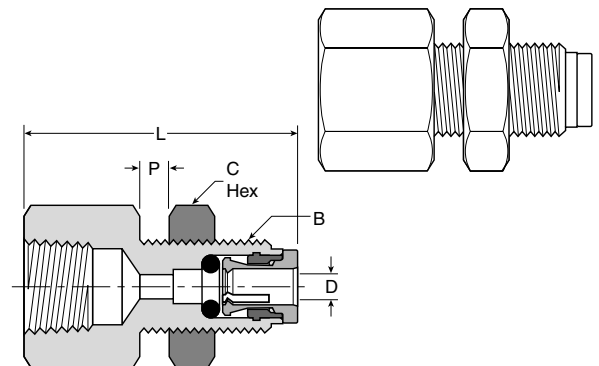
Female Connector 66ML

Part No.	Tube Size	Pipe Thread NPTF	C Hex	L	Flow Dia. D.
66ML-2-2	1/8	1/8	9/16	.99	.093
66ML-2-4	1/8	1/4	11/16	1.22	.093
66ML-5/32-2	5/32	1/8	9/16	.98	.110
66ML-5/32-4	5/32	1/4	11/16	1.19	.110
66ML-4-2	1/4	1/8	9/16	.99	.190
66ML-4-4	1/4	1/4	11/16	1.20	.190
66ML-4-6	1/4	3/8	13/16	1.24	.190
66ML-6-4	3/8	1/4	11/16	1.28	.312
66ML-6-6	3/8	3/8	13/16	1.28	.312
66ML-6-8	3/8	1/2	1	1.44	.312
66ML-8-6	1/2	3/8	13/16	1.35	.406
66ML-8-8	1/2	1/2	1	1.58	.406



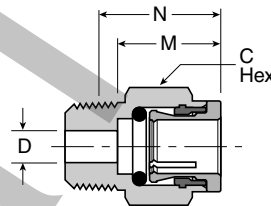
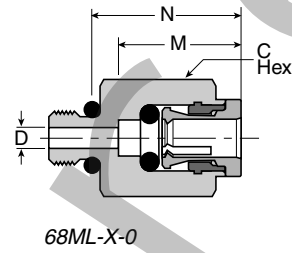
Female Bulkhead 66MLBH

Part No.	Tube Size	Pipe Thread NPTF	B Thread	C Hex	P Max.	L	Flow Dia. D.
66MLBH-2-4	1/8	1/4	3/8-24	11/16	.31	1.22	.093
66MLBH-5/32-2	5/32	1/8	7/16-24	9/16	.36	1.07	.110
66MLBH-5/32-4	5/32	1/4	7/16-24	9/16	.36	1.29	.110
66MLBH-4-2	1/4	1/8	1/2-24	9/16	.36	1.06	.190
66MLBH-4-4	1/4	1/4	1/2-24	11/16	.36	1.25	.190
66MLBH-6-6	3/8	3/8	5/8-18	13/16	.36	1.34	.312
66MLBH-8-6	1/2	3/8	3/4-16	13/16	.36	1.41	.406
66MLBH-8-8	1/2	1/2	3/4-16	1	.36	1.64	.406



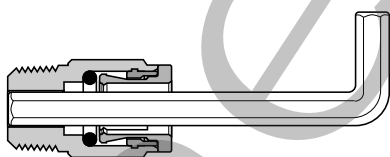
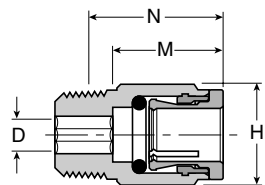
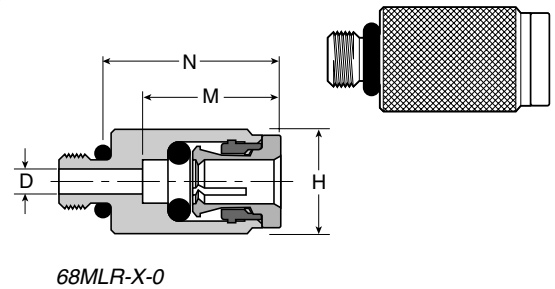
Microlok Male Connector W68ML

Part No.	Tube Size	Pipe Thread	C Hex	Assm. Ht.		Flow Dia. D
				N	M	
W68ML-2-1	1/8	1/16	3/8	.50	.49	.094
W68ML-2-2	1/8	1/8	7/16	.46	.49	.094
68ML-2-0	1/8	10-32	3/8	.58	.49	.078
W68ML-5/32-1	5/32	1/16	7/16	.53	.49	.094
W68ML-5/32-2	5/32	1/8	7/16	.33	.49	.110
W68ML-5/32-4	5/32	1/4	5/8	.45	.49	.110
68ML-5/32-0	5/32	10-32	7/16	.60	.49	.078
W68ML-4-1	1/4	1/16	7/16	.64	.52	.140
W68ML-4-2	1/4	1/8	1/2	.52	.52	.220
W68ML-4-4	1/4	1/4	5/8	.46	.52	.220
W68ML-4-6	1/4	3/8	11/16	.50	.52	.220
68ML-4-0	1/4	10-32	7/16	.60	.52	.078
W68ML-6-2	3/8	1/8	5/8	.81	.63	.220
W68ML-6-4	3/8	1/4	5/8	.73	.63	.312
W68ML-6-6	3/8	3/8	11/16	.54	.63	.312
W68ML-6-8	3/8	1/2	7/8	.63	.63	.312
W68ML-8-4	1/2	1/4	3/4	.94	.68	.314
W68ML-8-6	1/2	3/8	3/4	.78	.68	.440
W68ML-8-8	1/2	1/2	7/8	.63	.68	.440



Microlok Round Body Male Connector W68MLR

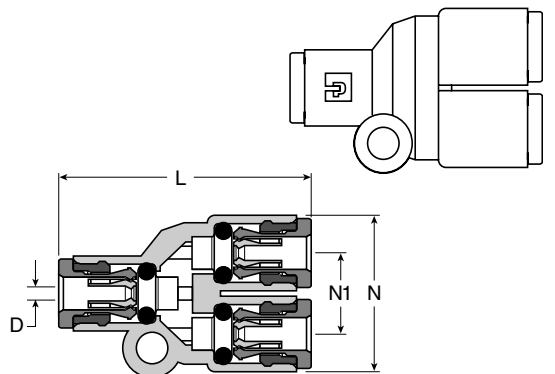
Part No.	Tube Size	Pipe Thread	Body Dia. H	Internal Hex	Assm. Ht.		Flow Dia. D
					N	M	
68MLR-2-0	1/8	10-32	.34	—	.57	.49	.078
W68MLR-5/32-1	5/32	1/16	.38	1/8	.55	.49	.126
W68MLR-5/32-2	5/32	1/8	.43	1/8	.56	.49	.126
68MLR-5/32-0	5/32	10-32	.38	—	.57	.49	.078
W68MLR-4-1	1/4	1/16	.47	5/32	.68	.52	.156
W68MLR-4-2	1/4	1/8	.47	3/16	.59	.52	.188
W68MLR-4-4	1/4	1/4	.59	3/16	.51	.52	.188
68MLR-4-0	1/4	10-32	.47	—	.58	.52	.094



5/32" and larger straight Microlok round body Male Connectors with Pipe Threads have an internal hex for the use of an Allen Key to allow the fitting to be mounted in any position. This also permits close porting not possible with a standard wrench.

Union Y Connector 362ML

Part No.	Tube Size	Mounting Hole Dia.	L	N	N1	Flow Dia. D
362ML-5/32	5/32	.13	1.08	.71	.38	.080
362ML-4	1/4	.13	1.23	.90	.48	.130

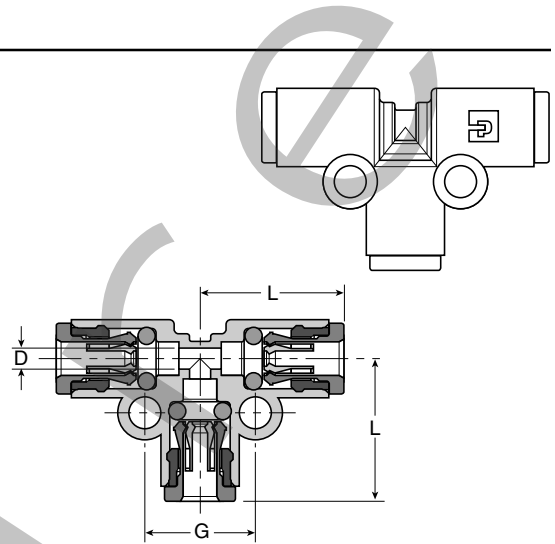


Union Tee 364ML

Composite Body

Part No.	Tube Size	Mounting Hole Dia.	L	G	Flow Dia. D
364ML-2	1/8	.13	.56	.43	.081
364ML-5/32	5/32	.13	.58	.46	.110
364ML-4	1/4	.13	.67	.53	.190
364ML-6*	3/8	—	.96	—	.250
364ML-8*	1/2	—	1.11	—	.370

* 3/8 & 1/2 have no mounting hole

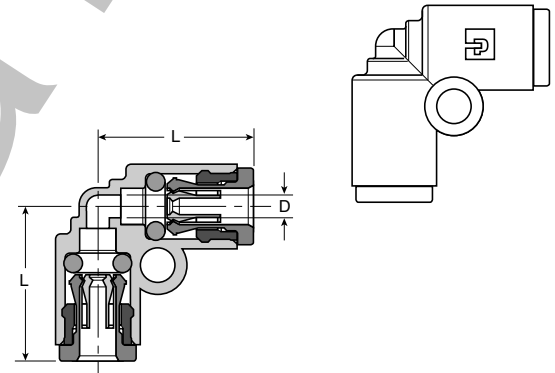


Union Elbow 365ML

Composite Body

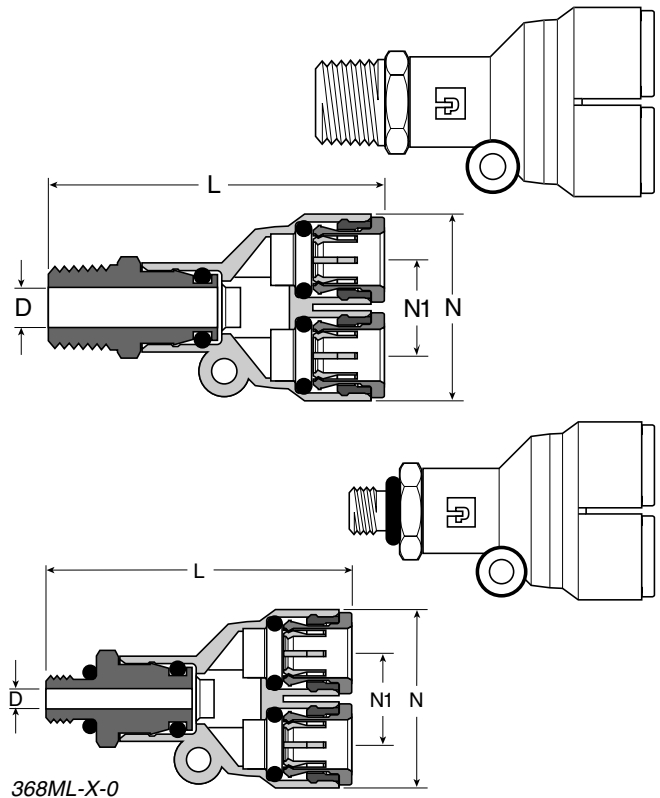
Part No.	Tube Size	Mounting Hole Dia.	L	Flow Dia. D
365ML-2	1/8	.13	.56	.081
365ML-5/32	5/32	.13	.58	.110
365ML-4	1/4	.13	.67	.190
365ML-6*	3/8	—	.96	.250
365ML-8*	1/2	—	1.09	.370

* 3/8 & 1/2 have no mounting hole



Union Y Male Connector 368ML

Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	L	N	N1	Flow Dia. D
368ML-2-0	1/8	10-32	.13	1.28	.64	.33	.060
W368ML-2-1	1/8	1/16	.13	1.42	.64	.33	.060
W368ML-2-2	1/8	1/8	.13	1.42	.64	.33	.060
368ML-5/32-0	5/32	10-32	.13	1.35	.71	.38	.078
W368ML-5/32-1	5/32	1/16	.13	1.48	.71	.38	.080
W368ML-5/32-2	5/32	1/8	.13	1.48	.71	.38	.080
368ML-4-0	1/4	10-32	.13	1.48	.90	.47	.078
W368ML-4-1	1/4	1/16	.13	1.62	.90	.47	.130
W368ML-4-2	1/4	1/8	.13	1.62	.90	.47	.130
W368ML-4-4	1/4	1/4	.13	1.96	.90	.47	.130

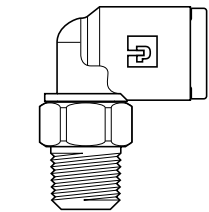
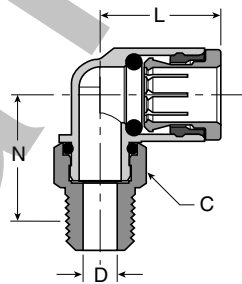
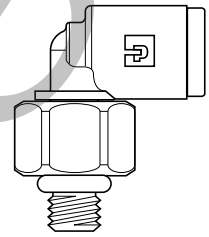
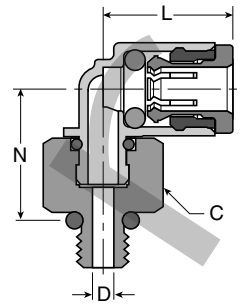


368ML-X-0

Male Elbow Swivel 90° W369ML

Composite Body

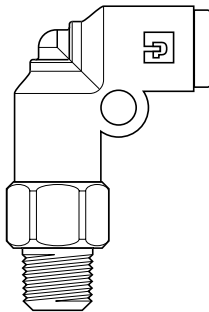
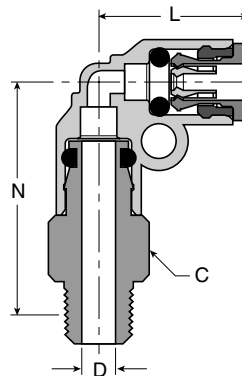
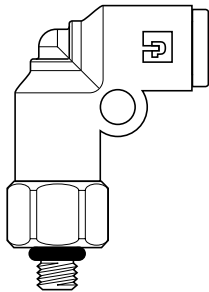
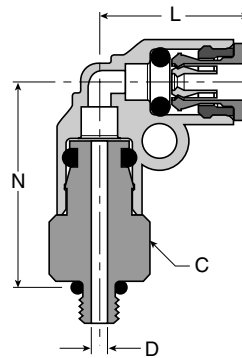
Part No.	Tube Size	Pipe Thread	C		Ht. N	Assm. Flow Dia D
			Hex	L		
369ML-2-0	1/8	10-32	3/8	.56	.45	.078
W369ML-2-1	1/8	1/16	3/8	.56	.48	.110
W369ML-2-2	1/8	1/8	7/16	.56	.40	.110
W369ML-2-4	1/8	1/4	9/16	.46	.54	.110
369ML-5/32-0	5/32	10-32	3/8	.58	.45	.078
W369ML-5/32-1	5/32	1/16	3/8	.58	.48	.110
W369ML-5/32-2	5/32	1/8	7/16	.58	.40	.110
W369ML-5/32-4	5/32	1/4	5/8	.58	.49	.110
369ML-4-0	1/4	10-32	3/8	.67	.54	.078
W369ML-4-1	1/4	1/16	3/8	.67	.57	.156
W369ML-4-2	1/4	1/8	7/16	.67	.49	.195
W369ML-4-4	1/4	1/4	9/16	.67	.57	.195
W369ML-4-6	1/4	3/8	11/16	.55	.68	.195
W369ML-6-2	3/8	1/8	3/4	.96	.87	.220
W369ML-6-4	3/8	1/4	3/4	.96	.87	.250
W369ML-6-6	3/8	3/8	3/4	.96	.93	.250
W369ML-6-8	3/8	1/2	7/8	.96	1.04	.250
W369ML-8-4	1/2	1/4	15/16	1.09	1.04	.313
W369ML-8-6	1/2	3/8	15/16	1.09	1.05	.375
W369ML-8-8	1/2	1/2	1	1.09	1.12	.376



Extended Male Elbow Swivel W369MLX

Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C		Ht. N	Assm. Flow Dia D
				Hex	L		
369MLX-2-0	1/8	10-32	.13	3/8	.56	.84	.078
W369MLX-2-1	1/8	1/16	.13	3/8	.56	.85	.081
W369MLX-2-2	1/8	1/8	.13	7/16	.56	.77	.081
369MLX-5/32-0	5/32	10-32	.13	3/8	.58	.86	.078
W369MLX-5/32-1	5/32	1/16	.13	3/8	.58	.86	.106
W369MLX-5/32-2	5/32	1/8	.13	7/16	.58	.78	.106
W369MLX-5/32-4	5/32	1/4	.13	9/16	.58	.86	.106
369MLX-4-0	1/4	10-32	.13	3/8	.70	1.00	.078
W369MLX-4-1	1/4	1/16	.13	3/8	.67	1.05	.156
W369MLX-4-2	1/4	1/8	.13	7/16	.67	.93	.190
W369MLX-4-4	1/4	1/4	.13	9/16	.67	1.00	.190
W369MLX-6-4*	3/8	1/4	—	3/4	.96	1.62	.250
W369MLX-6-6*	3/8	3/8	—	3/4	.96	1.62	.250
W369MLX-6-8*	3/8	1/2	—	7/8	.96	1.79	.250
W369MLX-8-4*	1/2	1/4	—	15/16	1.09	1.79	.313
W369MLX-8-6*	1/2	3/8	—	15/16	1.09	1.95	.375
W369MLX-8-8*	1/2	1/2	—	1	1.09	2.02	.376

* 3/8 & 1/2 have no mounting hole

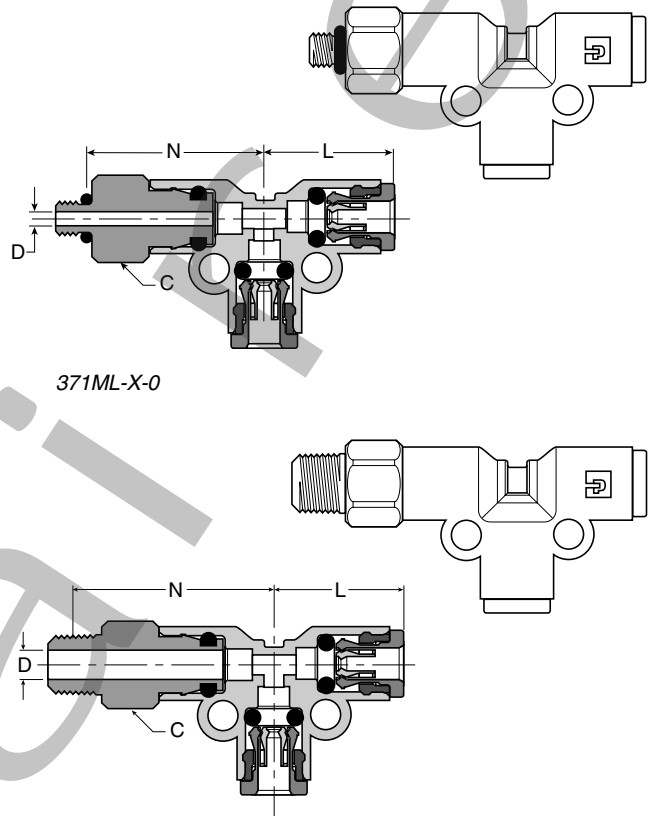


Male Run Tee Swivel W371ML

Composite Body

Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex	Assm.		
					L	Ht. N	Flow Dia D
371ML-2-0	1/8	10-32	.13	3/8	.56	.85	.078
W371ML-2-1	1/8	1/16	.13	3/8	.56	.85	.081
W371ML-2-2	1/8	1/8	.13	7/16	.56	.77	.081
371ML-5/32-0	5/32	10-32	.13	3/8	.58	.85	.078
W371ML-5/32-1	5/32	1/16	.13	3/8	.58	.86	.106
W371ML-5/32-2	5/32	1/8	.13	7/16	.58	.78	.106
371ML-4-0*	1/4	10-32	—	3/8	.67	1.00	.078
W371ML-4-1*	1/4	1/16	—	3/8	.67	1.05	.156
W371ML-4-2*	1/4	1/8	—	7/16	.67	.93	.190
W371ML-4-4*	1/4	1/4	—	9/16	.67	1.00	.190
W371ML-6-4*	3/8	1/4	—	3/4	.96	.97	.250
W371ML-6-6*	3/8	3/8	—	3/4	.96	.94	.250
W371ML-6-8*	3/8	1/2	—	7/8	.96	1.05	.250
W371ML-8-4*	1/2	1/4	—	15/16	1.11	1.07	.313
W371ML-8-6*	1/2	3/8	—	15/16	1.11	1.08	.375
W371ML-8-8*	1/2	1/2	—	1	1.11	1.15	.376

* 1/4, 3/8 & 1/2 have no mounting hole



Male Branch Tee Swivel W372ML

Composite Body

Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex	Assm.		
					L	Ht. N	Flow Dia D
372ML-2-0	1/8	10-32	.13	3/8	.56	.85	.078
W372ML-2-1	1/8	1/16	.13	3/8	.56	.85	.081
W372ML-2-2	1/8	1/8	.13	7/16	.56	.77	.081
372ML-5/32-0	5/32	10-32	.13	3/8	.58	.85	.078
W372ML-5/32-1	5/32	1/16	.13	3/8	.58	.86	.106
W372ML-5/32-2	5/32	1/8	.13	7/16	.58	.78	.106
372ML-4-0*	1/4	10-32	—	3/8	.67	1.00	.078
W372ML-4-1*	1/4	1/16	—	3/8	.67	1.05	.156
W372ML-4-2*	1/4	1/8	—	7/16	.67	.93	.190
W372ML-4-4*	1/4	1/4	—	9/16	.67	1.00	.190
W372ML-6-2*	3/8	1/8	—	3/4	.96	.91	.220
W372ML-6-4*	3/8	1/4	—	3/4	.96	1.00	.250
W372ML-6-6*	3/8	3/8	—	3/4	.96	.97	.250
W372ML-6-8*	3/8	1/2	—	7/8	.96	1.08	.250
W372ML-8-4*	1/2	1/4	—	15/16	1.11	1.04	.313
W372ML-8-6*	1/2	3/8	—	15/16	1.11	1.05	.375
W372ML-8-8*	1/2	1/2	—	1	1.11	1.12	.376

* 1/4, 3/8 & 1/2 have no mounting hole

