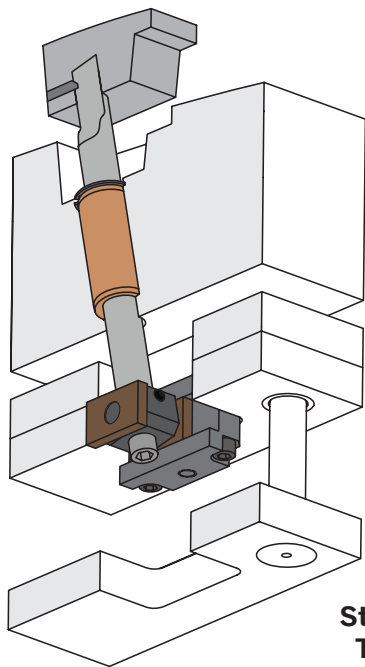


MODULIFTER®

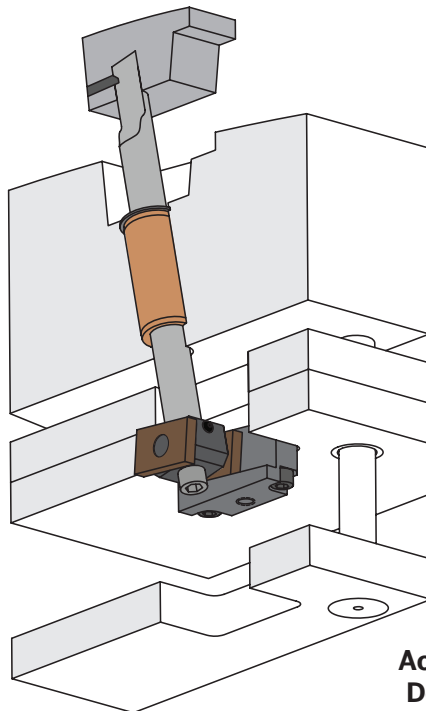
UNDERCUT RELEASE SYSTEM

A standardized modular lifter assembly simplifies undercut release:

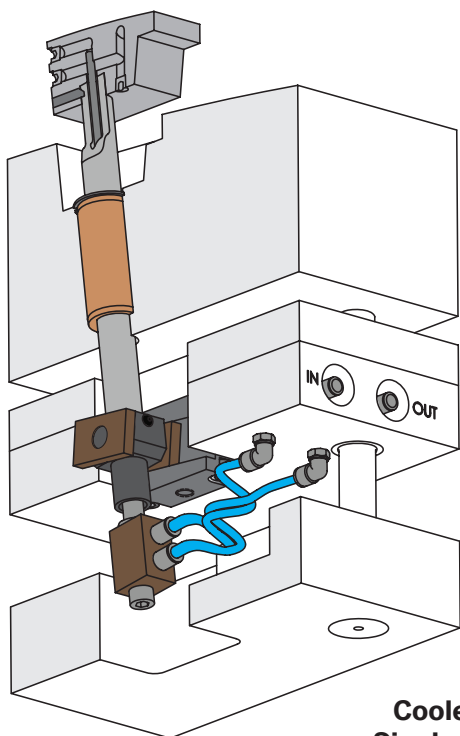
- Specialized design for accelerated and decelerated applications.
- Additional lifter cooling options and components available.



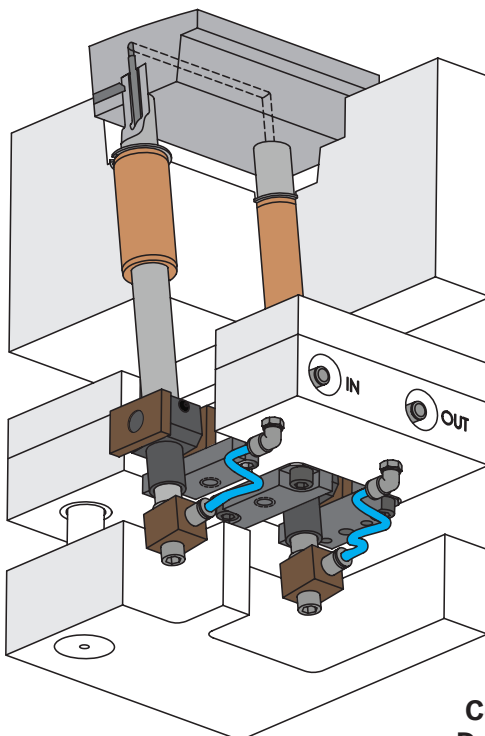
**Straight
Travel**



**Accelerated/
Decelerated
Options**



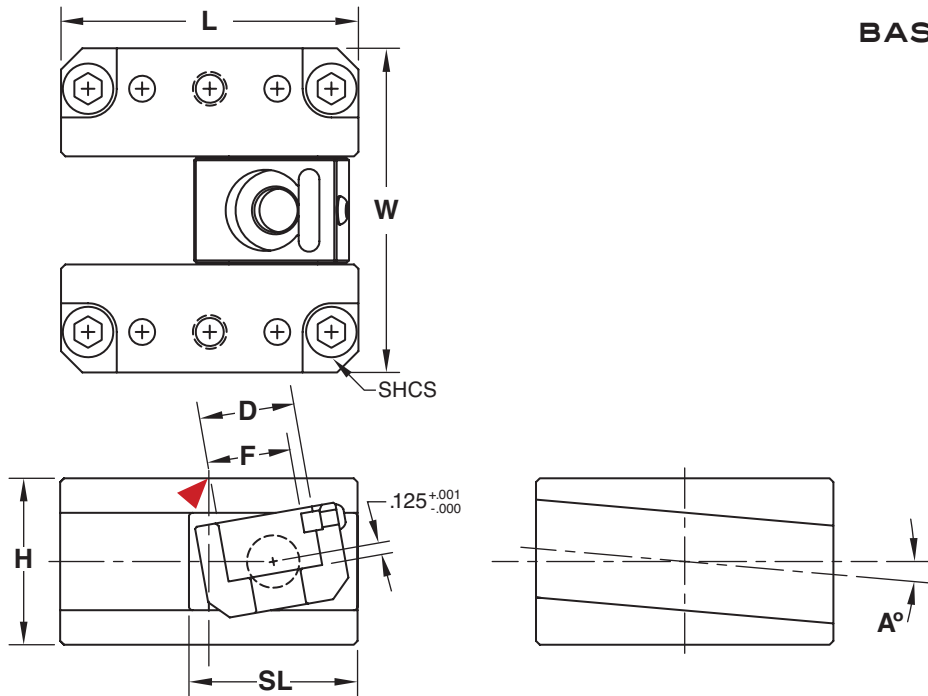
**Cooled:
Single Rod
In/Out**



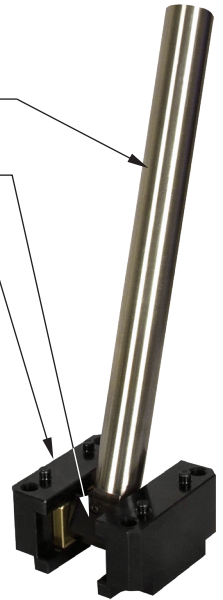
**Cooled:
Dual Rod
In/Out**



MODULIFTER® BASE ASSEMBLY/LIFTER ROD



- Rod (sold separately)
- Base Assembly includes:
- Rod Coupling Assembly
 - Gibs (2)
 - Mounting Screws (4)
 - Dowels installed



BASE ASSEMBLY

Gibs/Coupling: **M** 1045 **H** 28-32 HRC **S** Nitride Slides: **M** C86300 (Graphite Plugs if specified)

NOMINAL ROD DIAMETER Ø	CATALOG NUMBER			L +.000 -.015	W +.000 -.002	H +.000 -.001	D +.0003 -.0000	F +.0015 -.0000	SHCS	SL	TRAVEL (L-SL)
	A = 0°	A = 5°	A = 10°								
1/2	MLBA050	MLBA050-5	MLBA050-10	2.250	2.250	1.375	.5003	.4505	1/4-20 x 1-1/2	1.38	.87
5/8	MLBA063	MLBA063-5	MLBA063-10	2.625	2.500	1.375	.6253	.5905	1/4-20 x 1-1/2	1.57	1.06
3/4	MLBA075	MLBA075-5	MLBA075-10	2.750	3.000	1.750	.7503	.6905	5/16-18 x 2	1.57	1.18
1	MLBA100	MLBA100-5	MLBA100-10	3.125	3.250	1.750	1.0003	.8755	5/16-18 x 2	1.77	1.35
1-1/4	MLBA125	MLBA125-5	MLBA125-10	3.875	4.000	2.250	1.2503	1.1605	3/8-16 x 2-1/2	2.76	1.12
1-1/2	MLBA150	MLBA150-5	MLBA150-10	4.750	4.250	2.500	1.5003	1.4005	3/8-16 x 2-3/4	3.15	1.60

Notes:

- Includes (4) SHCS and (4) Dowels. For ModuLifter Base Assemblies with different Gib angles, contact tech@procomps.com.
- To order with Graphite Plugged Base, add GP to the part number as shown, Ex: MLBAGPxxx.



LIFTER ROD

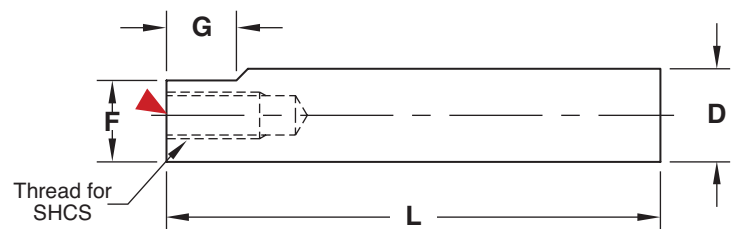


M 1045 **H** Core: 28-32 HRC, Surface: 56-58 HRC

D +.0000 -.0003	CATALOG NUMBER	L +.13 -.00	F +.000 -.001	G +.03 -.00	SHCS
.500	MLR050L14	14	.450	.50	1/4-20 x 5/8
.625	MLR063L14	14	.590	.56	5/16-18 x 3/4
.750	MLR075L16	16	.690	.68	3/8-16 x 7/8
1.000	MLR100L16	16	.875	.75	1/2-13 x 1
1.250	MLR125L18	18	1.160	.94	5/8-11 x 1-1/2
1.500	MLR150L18	18	1.400	1.00	5/8-11 x 1-1/2

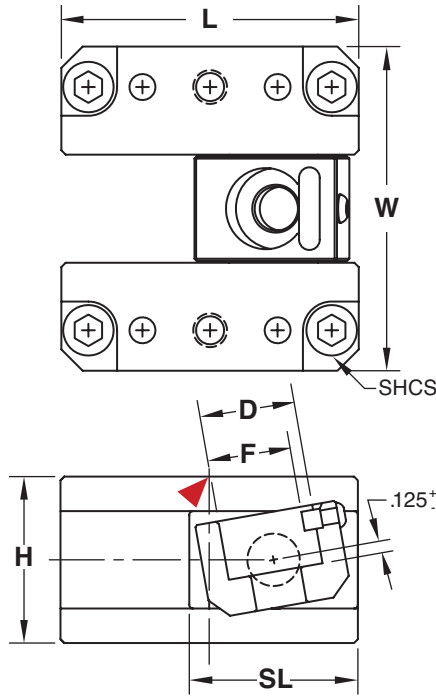
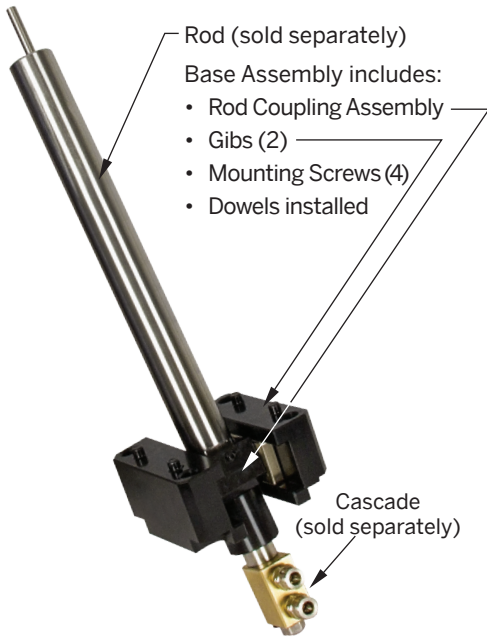
Notes:

- Includes (1) screw for installation.
- For additional Lifter Rod lengths, contact tech@procomps.com.

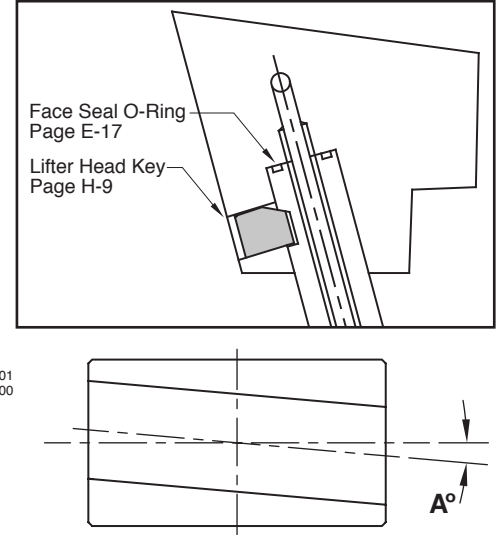


MODULIFTER®

COOLED BASE ASSEMBLY/LIFTER ROD



The ModuLifter Cooling Base Assemblies have three (3) options for varying water connections. Additional accessories are shown below.



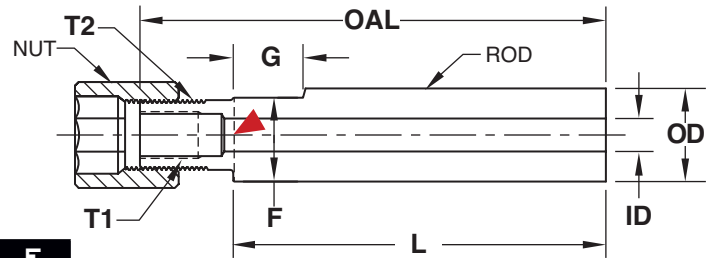
COOLED BASE ASSEMBLY

Gibs/Coupling: **M** 1045 **H** 28-32 HRC **S** Nitride Slides: **M** C86300 (Graphite Plugs if specified) ▶ CAD insertion point

NOMINAL ROD DIAMETER	CATALOG NUMBER			L +.000 -.015	W +.000 -.002	H +.000 -.001	D +.0003 -.0000	F +.0015 -.0000	SHCS	SL	TRAVEL (L-SL)
	A = 0°	A = 5°	A = 10°								
5/8	MLCBA063	MLCBA063-5	MLCBA063-10	2.625	2.500	1.375	.6253	.5905	1/4-20 x 1-1/2	1.57	1.06
3/4	MLCBA075	MLCBA075-5	MLCBA075-10	2.750	3.000	1.750	.7503	.6905	5/16-18 x 2	1.57	1.18
1	MLCBA100	MLCBA100-5	MLCBA100-10	3.125	3.250	1.750	1.0003	.8755	5/16-18 x 2	1.77	1.35
1-1/4	MLCBA125	MLCBA125-5	MLCBA125-10	3.875	4.000	2.250	1.2503	1.1605	3/8-16 x 2-1/2	2.76	1.12
1-1/2	MLCBA150	MLCBA150-5	MLCBA150-10	4.750	4.250	2.500	1.5003	1.4005	3/8-16 x 2-3/4	3.15	1.60

- Notes:
- Includes (4) SHCS and (4) Dowels. For ModuLifter Base Assemblies with different Gib angles, contact tech@procomps.com.
 - To order with Graphite Plugged Base, add GP to the part number as shown, Ex. MLCBAGPxxx.

COOLED LIFTER ROD



M 1045 **H** Core: 28-32 HRC, Surface: 56-58 HRC

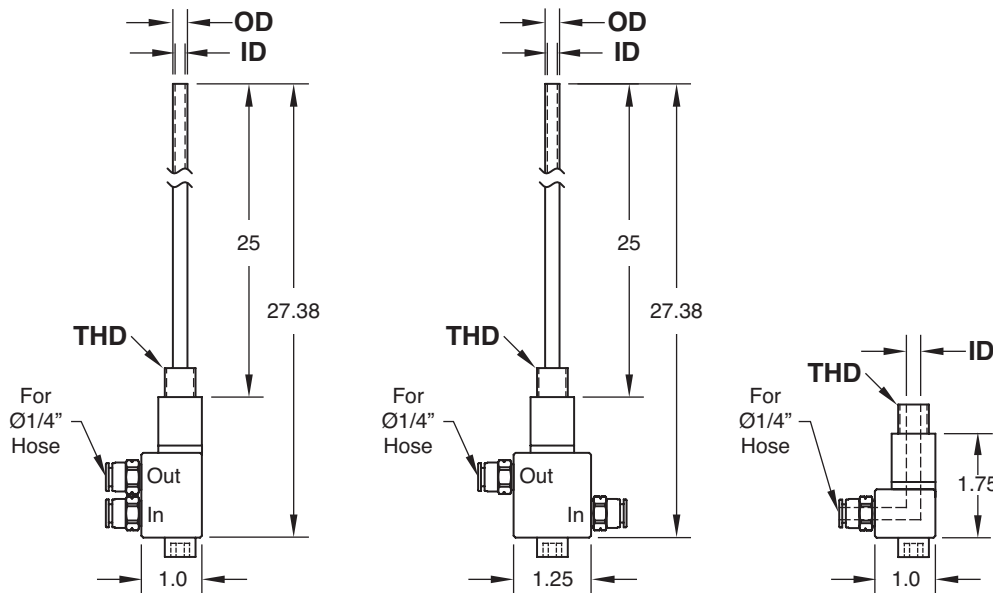
OD +.0000 -.0003	CATALOG NUMBER	ID	OAL	L +.13 -.00	T1 Internal Thread	T2 External Thread	G +.03 -.00	F +.000 -.001
.625	MLCR063L14	.250	14.75	14	5/16-24	1/2-20	.56	.590
.750	MLCR075L16	.250	16.88	16	5/16-24	1/2-20	.68	.690
1.000	MLCR100L16	.375	17.00	16	1/2-20	3/4-20	.75	.875
1.250	MLCR125L18	.375	19.25	18	1/2-20	7/8-20	.94	1.160
1.500	MLCR150L18	.375	19.38	18	1/2-20	7/8-20	1.00	1.400

▶ CAD insertion point

- Notes:
- Includes (1) Installation Nut. Replacement nuts are available; refer to the price list.
 - For additional Cooled Lifter Rod lengths, contact tech@procomps.com.



MODULIFTER® COOLING CASCADES



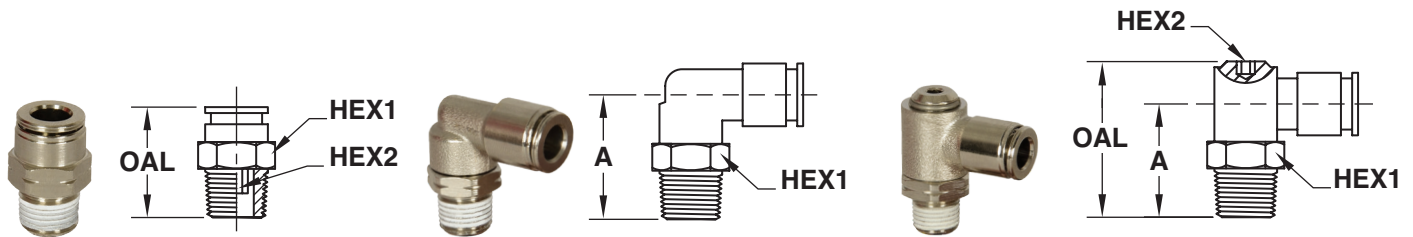
Swivel Type

M C86300 and Stainless Steel. Fittings: Nickel Plated Brass.

Parallel (In & Out)			Series (In & Out)			Single (In Only)		THD	MAX TORQUE	NOMINAL ROD DIAMETER Ø
OD	ID	CATALOG NUMBER	OD	ID	CATALOG NUMBER	ID	CATALOG NUMBER			
.157	.12	MLCP16L25	.157	.12	MLCS16L25	.12	MLC12	5/16-24	75 in-lbs	5/8, 3/4
.236	.20	MLCP23L25	.236	.20	MLCS23L25	.20	MLC20	1/2-20	20 ft-lbs	1, 1-1/4, 1-1/2

Note: Straight Fittings included with Cooling Cascades.

PUSH-TO-CONNECT HOSE FITTINGS



FITTING TYPE	CATALOG NUMBER	HOSE OD	THD (NPT)	HEX1	HEX2	A	OAL
Straight	MLFS25	1/4	1/8	1/2	5/32	—	.87
Elbow	MLFE25	1/4	1/8	1/2	—	.83	—
Banjo	MLFB25	1/4	1/8	9/16	1/8	.81	1.22

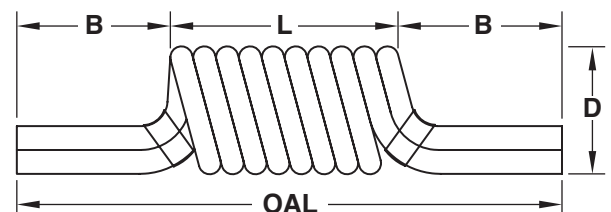
M Nickel Plated Brass with Sealant

Note: Maximum Operating Temperature 160° F.

PUSH-TO-CONNECT SPIRAL AND STRAIGHT HOSES

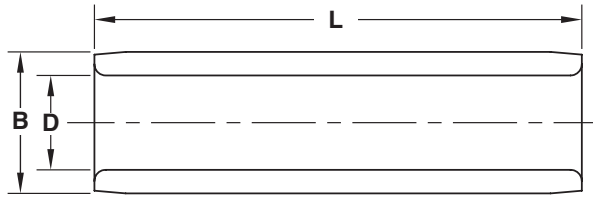
M Polyurethane

CATALOG NUMBER	HOSE OD	HOSE ID	TURNS	OAL	L	B	D
MLH25-5	1/4	5/32	5	10.5 in	2.5	4	1.5
MLH25-10	1/4	5/32	10	13.0 in	5.0	4	1.5
MLH25-25	1/4	5/32	Straight	25.0 ft	—	—	—



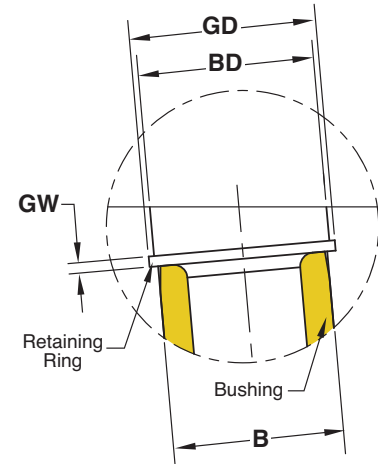
Note: Maximum Operating Temperature 160° F.

MODULIFTER® LIFTER ROD BUSHING



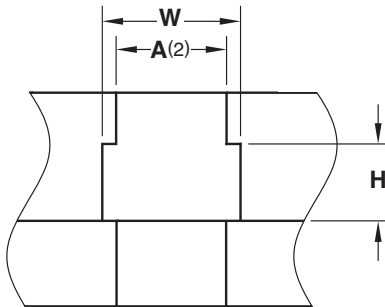
Bushings: **M** C95400 Retaining Ring: **M** Steel **S** Black Oxide

CATALOG NUMBER	D +.001 -.000	B +.0005 -.0000	L +.00 -.01	GD +.005 -.000	GW +.005 -.000	BD ±.002
MLBSH50L1.37	.5005	.750	1.375	.862	.046	.813
MLBSH63L1.37	.6255	.875	1.375	1.000	.046	.934
MLBSH75L3.37	.7505	1.125	3.375	1.262	.056	1.188
MLBSH100L4.37	1.0005	1.375	4.375	1.528	.056	1.438
MLBSH125L4.87	1.2505	1.625	4.875	1.792	.068	1.688
MLBSH150L5.87	1.5005	2.000	5.875	2.186	.086	2.063



Note: Includes (1) Retaining Ring. Replacement rings are available with pricing listed in the price list.

ROD COUPLING ASSEMBLY PLATE MACHINING OPTION



Coupling: **M** 1045 **H** 28-32 HRC **S** Nitride

Slides: **M** C86300 (Graphite Plugs if specified)

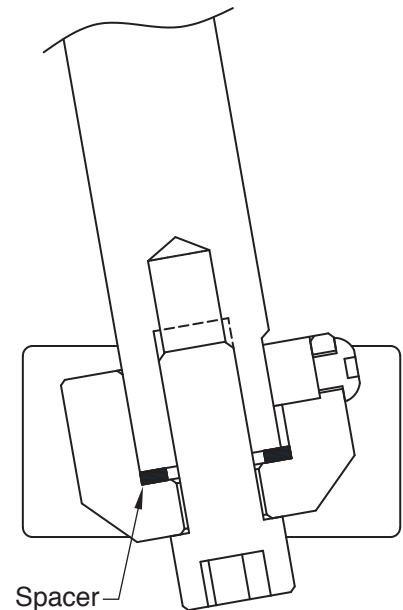
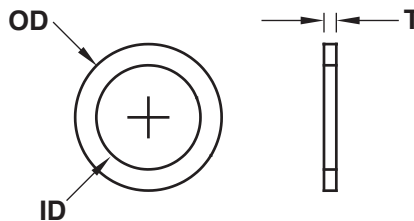
NOMINAL ROD DIA. Ø	CATALOG NUMBER		W +.002 -.000	H ±.001	A +.010 -.000
	Non-Cooled	Cooled			
1/2	RC050	—	1.187	.788	.66
5/8	RC063	RCC063	1.310	.788	.78
3/4	RC075	RCC075	1.500	.946	.97
1	RC100	RCC100	1.781	1.024	1.21
1-1/4	RC125	RCC125	2.375	1.340	1.64
1-1/2	RC150	RCC150	2.656	1.498	1.84

Note: To order slides with Graphite Plugs, add GP to the part number as shown, Ex: RCGP050 or RCCGP125.

LIFTER ROD SPACER

M D-2 **H** 58-60 HRC

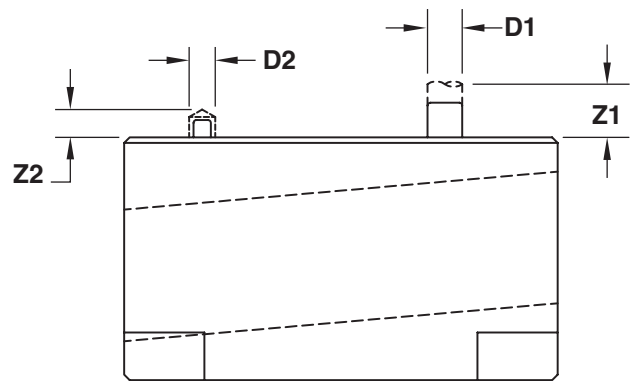
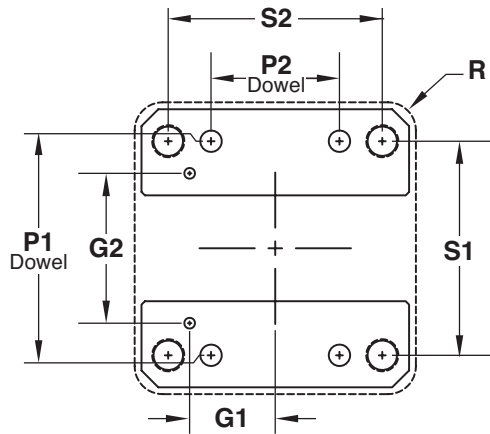
CATALOG NUMBER	OD +.00 -.01	ID +.000 -.005	T +.000 -.001
MLRS050	.500	.30	.063
MLRS063	.625	.53	
MLRS075	.750	.53	
MLRS100	1.000	.80	
MLRS125	1.250	.93	
MLRS150	1.500	.93	





MODULIFTER®

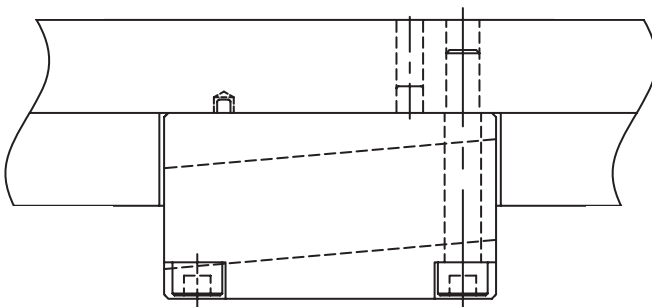
INSTALLATION GUIDELINES FOR BASE ASSEMBLIES



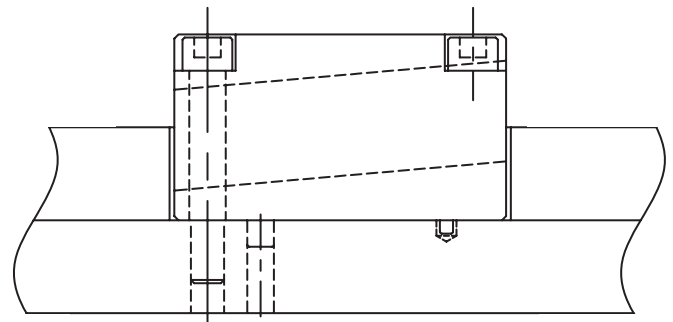
Installation Dimensions							
NOMINAL ROD DIAMETER Ø	S1 ±.005	S2 ±.005	P1 Dowel ±.0005	P2 Dowel ±.0005	R Pocket Max	D1 +.0005 -0.0000	Z1 +.03 -0.00
1/2	1.750	1.750	1.750	.750	.19	.2500	.28
5/8	2.000	2.000	2.000	1.000			
3/4	2.250	2.250	2.250	1.250			
1	2.500	2.500	2.500	1.500			
1-1/4	3.250	3.250	3.250	1.750	.25	.3750	.41
1-1/2	3.500	4.000	3.500	2.500			

Accel./Decel. Keying Dowel			
G1 ±.005	G2 ±.005	D2 Drill Ø	Z2 Drill Depth +.03/-0.00
.75	1.00	.125	.19
.75	1.25		
.75	1.50		
1.00	1.75	.188	.23
1.25	2.25		
1.50	2.50		

INSTALLATION METHODS



Bottom Mount



Top Mount