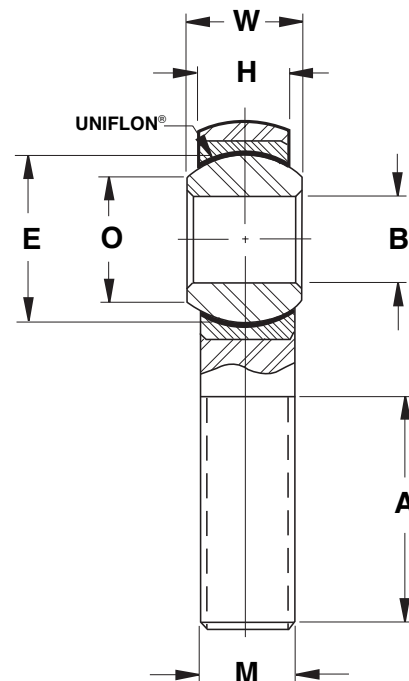
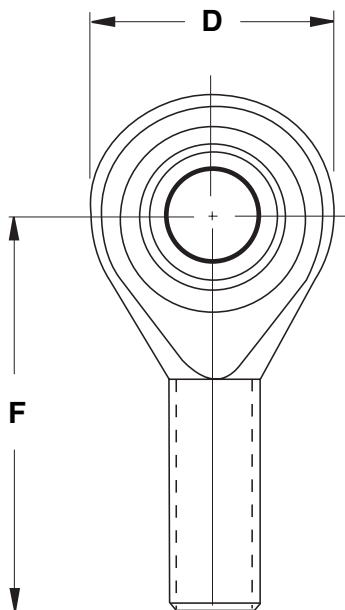


Precision Aircraft Series

Self-Lubricating



Series HME M

ROD END NUMBER	DIMENSIONS IN INCHES									MAXIMUM STATIC RADIAL LOAD	APPROX WEIGHT
	BORE	BALL WIDTH	HOUSING WIDTH	HEAD DIAMETER	LENGTH TO CENTER OF BALL	THREAD LENGTH	THREAD SIZE	BALL DIAMETER	BALL FLAT DIAMETER		
	B	W	H	D	F	A	M	E	O		
	+0.015 -0.005	+0.000 -0.005	+0.005 -0.005	+0.010 -0.010	+0.010 -0.010	+0.062 -0.031	UNF-3A	REF	REF	LBF	LBS
HME3M	.1900	.312	.250	.625	1.250	.750	.1900-32	.437	.306	865	.03
HME4M	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	1,550	.05
HME5M	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	2,080	.08
HME6M	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	2,950	.12
HME7M	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	3,160	.17
HME8M	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	4,925	.26
HME10M	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	5,465	.41
HME12M	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	8,300	.64
HME16M	1.0000	1.375	1.000 p	2.750 p	4.125	2.125	1.2500-12	1.875	1.275	28,400	2.25

Outer Member: Aircraft quality carbon steel, magnetic particle inspected, with protective coating for corrosion resistance

Ball: 52100 Alloy steel, heat treated, chrome plated

Race: Aluminum

Liner: Self-lubricating UNIFLON®

NOTES

⚙ Add letter "L" to prefix to indicate Left Hand thread
Example: HMLE4M

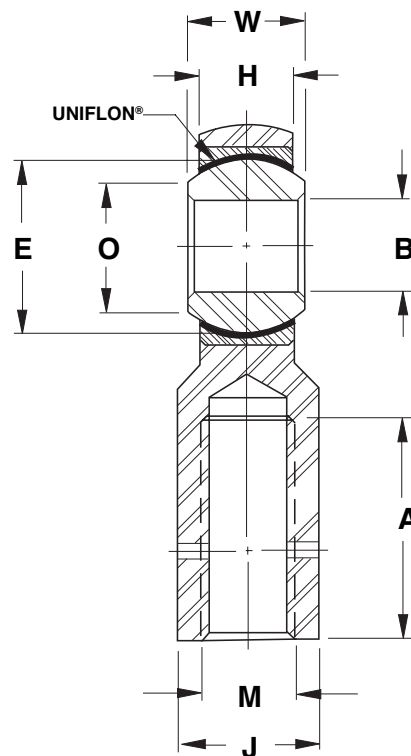
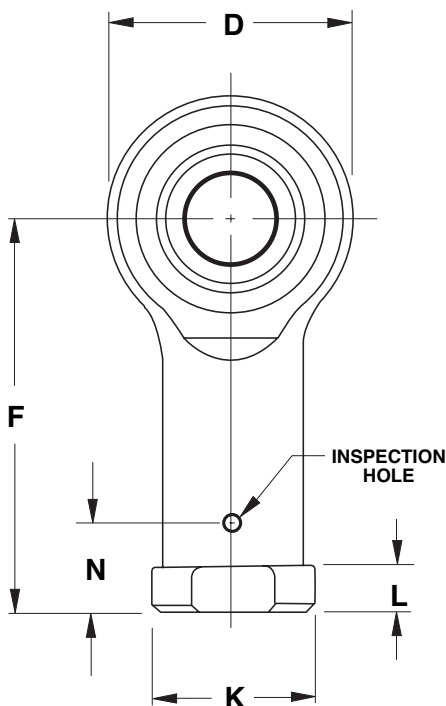
☐ For design options, see page 31

☐ For Engineering data, see pages 28 thru 30, 54

p Tolerances for 16 size: "D" +0.030
-0.010
"H" +0.030
-0.010

Precision Aircraft Series

Self-Lubricating



Series HFE M

ROD END NUMBER	DIMENSIONS IN INCHES													MAXIMUM STATIC RADIAL LOAD	APPROX WEIGHT
	BORE	BALL WIDTH	HOUSING WIDTH	HEAD DIAMETER	LENGTH TO CENTER OF BALL	THREAD LENGTH	THREAD SIZE	BALL DIAMETER	BALL FLAT DIAMETER	ACROSS WRENCH FLATS	OTHER DIMENSIONS				
	B	W	H	D	F	A	M	E	O	J	K	N	L		
	+0.015 -.0005	+0.000 -.005	+0.005 -.005	+0.010 -.010	+0.010 -.010	+0.062 -.031	UNF-3B	REF	REF	+0.010 -.010	+0.010 -.010	+0.020 -.020	+0.010 -.010	LBF	LBS
HFE3M	.1900	.312	.250	.625	1.062	.562	.1900-32	.437	.306	.312	.406	.312	.187	865	.03
HFE4M	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.353	.375	.468	.312	.187	1,550	.05
HFE5M	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.406	.187	2,080	.08
HFE6M	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.516	.562	.687	.469	.250	2,950	.12
HFE7M	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.531	.250	3,160	.17
HFE8M	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.594	.250	4,925	.26
HFE10M	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.750	.312	5,465	.41
HFE12M	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.875	.312	8,300	.64
HFE16M	1.0000	1.375	1.000 _p	2.750 _p	4.125	2.125	1.2500-12	1.875	1.275	1.500 _p	1.625 _p	1.000	.437 _p	28,400	2.25

Outer Member: Aircraft quality carbon steel, magnetic particle inspected, with protective coating for corrosion resistance

Ball: 52100 Alloy steel, heat treated, chrome plated

Race: Aluminum

Liner: Self-lubricating UNIFLON®

NOTES

1 Add letter "L" to prefix to indicate Left Hand thread
Example: HFLE4M

2 For design options, see page 31

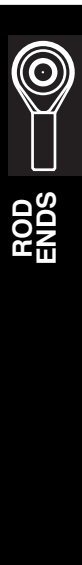
3 For Engineering data, see pages 28 thru 30, 54

4 Tolerances for 16 size: "D" +0.030
-.010
"H" +0.030
-.010
"K", "J", "L" +0.015
-.015

Military Series

(M81935/1)

Self-Lubricating



Series ME

HEIM PART NUMBER	M81935/1 DASH NO	DIMENSIONS IN INCHES									
		BORE	BALL WIDTH	HOUSING WIDTH	HEAD DIAMETER	LENGTH TO CENTER OF BALL	THREAD LENGTH	THREAD SIZE	BALL DIAMETER	BALL FLAT DIAMETER	
		B	W	H	D	F	A	M	E	O	
		+0.000 - .0005	+0.00 - .002	+0.005 - .005	+0.010 - .010	+0.010 - .010	+0.031 - .031	UNJF-3A	REF	MIN	
ME3	3	.1900	.437	.337	.806	1.562	.968	.3125-24	.531	.300	
ME4	4	.2500	.437	.337	.806	1.562	.968	.3125-24	.531	.300	
ME5	5	.3125	.437	.327	.900	1.875	1.187	.3125-24	.593	.360	
ME6	6	.3750	.500	.416	1.025	1.938	1.187	.3750-24	.687	.470	
ME7	7	.4375	.562	.452	1.150	2.125	1.281	.4375-20	.781	.540	
ME8	8	.5000	.625	.515	1.337	2.438	1.468	.5000-20	.875	.610	
ME10	10	.6250	.750	.577	1.525	2.625	1.562	.6250-18	1.062	.750	
ME12	12	.7500	.875	.640	1.775	2.875	1.687	.7500-16	1.250	.850	
ME14	14	.8750	.875	.765	2.025	3.375	2.000	.8750-14	1.375	1.000	
ME16	16	1.0000	1.375	1.015	2.775	4.125	2.343	1.2500-12	1.875	1.270	

Outer Member: 4340 Alloy steel, heat treated, magnetic particle inspected, cadmium plated and chromate treated

Ball: 440C heat treated

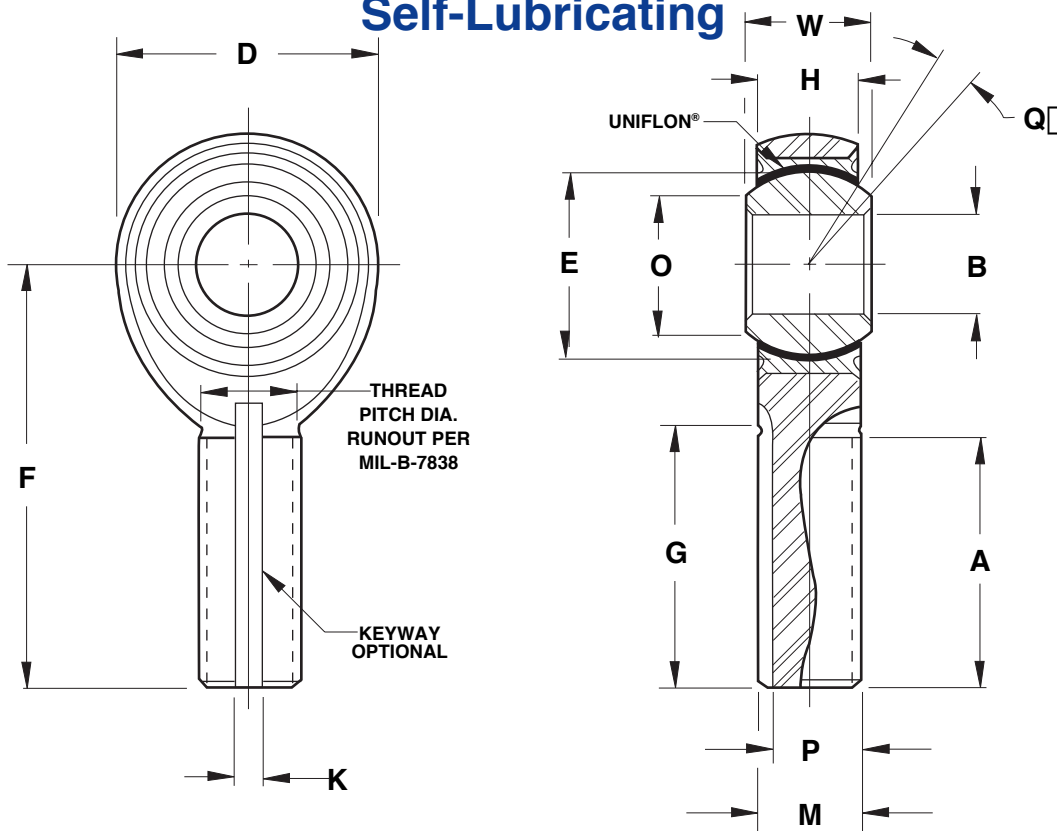
Race: 17-4PH heat treated

Liner: Self-lubricating "E" UNIFLON® per SAE-AS81820 (formerly MIL-B-81820)

Military Series

(M81935/1)

Self-Lubricating



	KEYWAY		KEYWAY FLAT	MISALIGNMENT ANGLE	ULTIMATE STATIC RADIAL LOAD	FATIGUE LOAD	AXIAL PROOF LOAD	APPROX WEIGHT	NO LOAD ROTATIONAL BREAKAWAY TORQUE	
	K	P	G	Q					INCH - POUNDS	MIN
	+ .005 - .000	+ .000 - .005	+ .000 - .020	MIN	LBF	LBF	LBF	LBS	MIN	MAX
	.062	.268	.980	15	2,360	1,470 ⑤	1,000	.072	0.5	6
	.062	.268	.980	15	4,860	2,380	1,000	.072	0.5	6
	.062	.268	1.270	14	7,180	2,770 ⑥	1,100	.087	1	15
	.093	.319	1.235	8	8,550	3,570	1,660	.136	1	15
	.093	.383	1.402	10	12,000	4,800	1,850	.183	1	15
	.093	.445	1.589	9	19,500	7,680 ⑥	2,040	.278	1	15
	.125	.541	1.683	12	21,900	9,180	2,430	.424	1	15
	.125	.663	1.808	13	29,300	11,600	2,810	.639	1	15
	.156	.777	2.121	6	34,500	13,100	3,320	.963	1	24
	.187	1.136	2.464	12	80,300	30,400	4,340	2.546	1	24

NOTES

- ① Add letter "L" to prefix to indicate Left Hand thread.
Example: MEL4
- Add letter "K" to prefix to indicate Keyway
Example: MEK4
- For liner specification, see page 54
- Ⓟ HEIM is qualified to supply this part and all variations per SAE-AS81935 (formerly MIL-B-81935)
- ⑤ Based on bolt bending fatigue strength 180,000 PSI
- ⑥ Shank limitation